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THE BLOCH-SULZBERGER SYNDROME (INCONTINENTIA PIGMENTI).

H. HABER,
Assistant Pathologist, St. John's Hospital for Diseases of the Skin.
Lecturer, Institute of Dermatology.

INCONTINENTIA PIGMENTI is a clinical entity described by Bloch (1926) and Sulzberger (1928). Bloch demonstrated the first case in 1925 to the Swiss Dermatological Society, and Sulzberger described the same case two years later. A 1½-year-old girl was admitted to the eye department for ablatio retinae due to a glioma, and because of the skin condition was referred to Bloch's clinic. The child showed a peculiar pigmentation, localized to the trunk and right lower extremity, consisting of a great number of spots of bizarre and irregular shape never before found in any dermatosis. The pigmentary pattern gave the impression of something arbitrary and artificial. The colour was a peculiar chocolate brown with a tinge of slate, reminiscent of tar melanosis. The family history was irrelevant. According to the mother pigmented spots were present at birth. There was in addition an exudative inflammation which healed slowly, leaving similar pigmented lesions.

The histology was characteristic. The epidermal changes were slight and confined to the basal layer, which showed various degrees of irregularity and hydrops of individual cells, as well as some small cells with pyknotic nuclei. In general the pigment in the epidermis was not increased, but was slightly increased in certain areas, which did not necessarily overlie the most heavily pigmented portions of the cutis. It was almost entirely in the form of fine powdery granules of melanin. It was obvious that the hyperpigmentation seen clinically was due to chromatophores heavily laden with melanin and situated within the upper and middle cutis.

Bloch and Sulzberger thought that the pigment dropped down into the cutis instead of being carried upwards into the epidermis to be desquamated in the normal way. This passive descent of pigment led to an autochthonous tattooing with melanin, which persisted for many years.

Later, at the tenth meeting of the Swiss Dermatological Society in 1927, Naegeli reported three similar cases in a father and two daughters, whilst a further child of the family suffered from hydroa vacciniforme. Naegeli considered the pigmentary condition to be a chromatophore naevus.

Almquist reported a case of incontinentia in a boy of 6 ; the lesions appeared during the first year of life.

Siemens (1929) reported another case in detail under the name of melanosis corii degenerativa—a 4-weeks-old girl with microcephaly and debility, Little's disease and convergent strabismus.

Levin (1933) showed the first American case as naevus reticularis and pigmentosus in a negress. A further case was described in detail by Sulzberger and his co-workers (1938). It was remarkable in that the mother, sister and niece of the patient suffered in varying degrees from some congenital ectodermal anomaly. The male members of the family were normal. The patient, a 19-year-old girl, had incontinentia pigmenti together with a calcareous opacity of the cornea, changes of the lens and convergent strabismus. In addition there were a scleroderma-like *coup de sabre* alopecia, nail changes and defective dentition.

Beintema (1935) showed a case at the Ninth International Congress of Dermatology in Budapest.

Gardner Hopkins and Machacek (1941) recorded a case of incontinentia pigmenti in a 7-year-old negress. There were no ectodermal changes present. In Argentina Pierini (1945) also published a case of a 6-month-old girl who presented the typical picture. When five days old the child broke out in a bullous and urticarial eruption which healed, leaving the characteristic peculiar pigmented pattern.

Kalz and Mackenzie (1947) described a case of a 26-month-old girl who was admitted to hospital on account of a painful abdominal mass which proved to be an infected urachal cyst. She presented a peculiar pigmentary pattern, congenital absence of teeth and, histologically, a typical picture of incontinentia pigmenti.

Sulzberger and Baer (1946) saw another two cases combined with other defects, and several more cases have been shown to American dermatological societies. Sobel (1948) showed a Chinese girl whose father also exhibited a pigmentary anomaly of the forearms and legs. Sulzberger and Bloom (1948) showed a girl with the typical pigmentary pattern, a verrucous linear naevus on the back of the right hand, a darkly pigmented irregularly shaped naevus on the right flank, and bluish sclerotics. This last feature was also present in the mother. Gardner Hopkins (1949) demonstrated a case in a girl with pigmentation arranged in typical " zebra pattern " on the inner aspect of the thighs and on the sides of the trunk. Marshall Crawford (1949) showed a case in a girl with pigment streaks appearing at the age of 3 months. The child

had a normal developmental history and was mentally alert. Curth (1949) showed a case to the American Dermatological Society. Zakon and Eirinberg (1950) showed a typical case with a history of a vesicular eruption followed by characteristic pigmentation and hyperkeratotic patches on the fingers and toes. In the discussion which followed Caro mentioned a similar case which also showed hyperkeratotic masses which fell off after one year. He considered it to be systematized naevus.

Carney (1951) reported 5 cases of incontinentia pigmenti and reviewed the literature. He collected a further 31 cases, which include the cases described above.

The British literature did not record this condition till 1948, when Haber showed the first case of incontinentia pigmenti at the Royal Society of Medicine. Within two months two more cases were seen by the writer, and because of their rarity it is proposed to describe them in detail.

Case Reports.

Case I.—Baby B.O—, born 22 September 1947 after normal labour. Weight 6½ lb. (3 kg.). Dr. I. S. Fox, who delivered the baby, kindly sent the following report :

" Female, an only child ; no consanguinity in the parents. Family history irrelevant.

" On examination there was a circumscribed area about 3 cm. across on the abdomen just above and to the left of the umbilicus, consisting of a central crop of deep-seated vesicles surrounded by a broad indurated border. Similar smaller lesions were seen below the left knee and on the left ankle. In addition there were some crusted warty-looking brown plaques having a linear distribution, raised above the surface of the skin, without any inflammatory border. These were situated along the left index finger, about the wrist and on the left forearm. The remainder of the skin was normal in colour and texture except for slight desquamation. There was no suggestion of ichthyosis, and there were no lesions on the head, in the mouth, on the umbilicus, palms or soles, nates or perineum.

" Later, scales and thin crusts formed over the circumscribed areas on the abdomen, below the left knee and on the left ankle, which eventually dropped off, leaving a macular staining. The warty lesions persisted. There was difficulty in feeding from the start and pipette feeding followed by tubular feeding had to be resorted to. When sixteen days old the baby developed a high fever and a raised respiration rate with rapid pulse, and I detected early signs of broncho-pneumonia, which subsided after treatment with penicillin in an oxygen tent for five days. There was subsequently only a very slow increase in weight in spite of a normal intake of food. The case was therefore referred to hospital for treatment."

The child was admitted to hospital at the age of eleven weeks and was found to have some respiratory obstruction and to become readily cyanosed. There was neck retraction and Kernig's sign was positive. The child did not seem to appreciate light, and showed a continuous nystagmus to the right.

While in hospital the blisters healed. The warty lesions peeled off in some places, leaving normal or pigmented skin. The child died at the age of 17 weeks. The post mortem (Dr. Martin Bodian) showed pyaemia with purulent meningitis, pyogenic infarcts and pyelo-nephritis.

There was a peculiar asymmetry of the head, with a long anteroposterior diameter

(12·7 cm.) and a short transverse diameter (9·2 cm.). The heart weighed 23 grammes, and the ductus arteriosus was still present although apparently sclerosing. Otherwise there was no abnormality.

Case II (shown at the Dermatological Section of the Royal Society of Medicine [Haber, 1948]).—S. B—, a girl born 28 May 1947. Only child, no consanguinity in the parents; no similar condition in the family. Grandmother of the baby had 19 children, "all perfect."

The doctor who delivered the baby made the following report:

"This infant at birth was noted to have an erythematous rash on the right arm. The next day the rash was present on all the limbs, and was characterized by erythematous areas, small vesicles and slight oozing. Later the chest and back were also involved. Local treatment was given with calamine lotion and penicillin ointment.

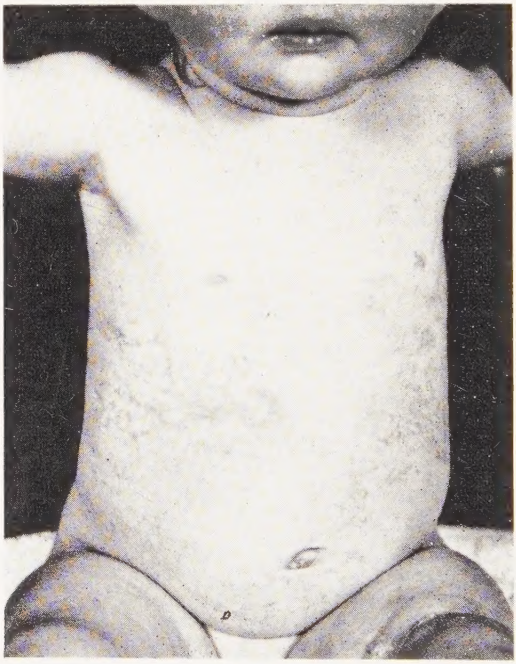

Fig. 1

The condition started to fade away around the tenth day, but since then has recurred with successive crops of erythematous blotches and wheals. During the pregnancy (7 months) mother developed pneumonia and was treated with sulphonamide."

On 8.vii.1947 the child was seen at hospital with tense vesicles arranged in lines, and crusts. She was treated as an out-patient. She returned on 21.x.1947 with a relapse and was admitted. The mother stated that the eruption had never disappeared entirely.

On admission there was an eruption on the trunk consisting of tense vesicles, arranged, in some places, in lines in a reticular pattern. There were warty lesions on the proximal parts of the limbs. The child had a flat occiput and blue sclerae. The face twitched occasionally. She seemed mentally deficient, smiled stupidly, and showed some peculiarities of behaviour, never raising her head or attempting to sit up. She was neither blind nor deaf. After a short stay in hospital the vesicular eruption cleared up and she was discharged.

She was readmitted on 31.xii.1947 for biopsy and further investigation. The vesicular eruption had disappeared completely, and was replaced by a peculiar pigmentation of characteristic grey and brown colour and striking arrangement. (Figs. 1 and 2.) The unit lesion was an atrophic macule, or a bizarre line, not placed along the course of the vessels or nerves. The warty lesions had undergone considerable involution, and only a few remained on the left thigh. On the scalp, behind the left ear, there was a lemon-yellow, half-pea-sized tumour, apparently a xanthoma.

The child's behaviour was more normal. She smiled frequently and made an effort to lift her head up.

The Wasserman reaction was negative.

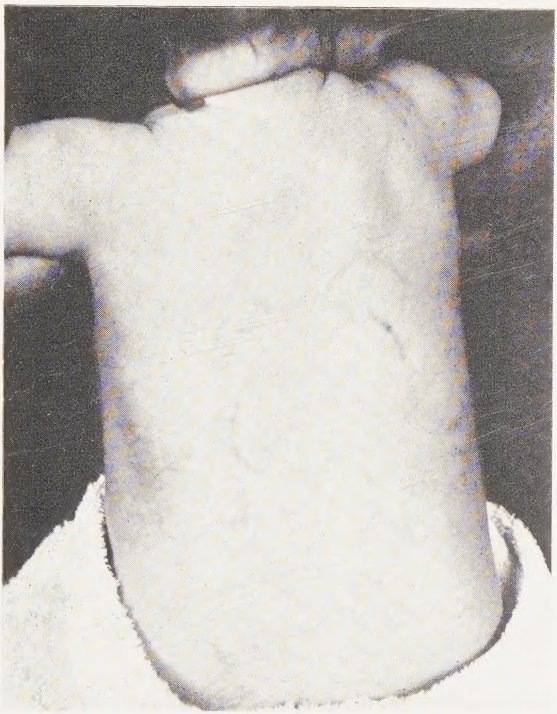

FIG. 2

The child was discharged and followed up at two-monthly intervals. The mother appeared to be pleased with the progress of her child which now seemed to be of average intelligence. When seen at two years of age the teeth looked abnormal, and Dr. W. Grossman made the following report: "Occlusion is normal. Upper and lower dental arches are normally developed. Deciduous teeth show hypoplastic changes. The right upper second incisor is missing and there is a low incidence of caries present. In the absence of skiagrams (the child could not be persuaded) I am unable to tell whether any of the permanent teeth are missing. The outstanding feature in this case is the marked maldevelopment of the enamel, particularly of the incisors."

CASE III.—P. P—, girl, born 2 August 1947. Weight 7½ lb. (3·4 kg.).

Throughout pregnancy the mother felt perfectly well. No consanguinity. No similar condition in the family. A second child born 31 May 1949 was normal.

The mother noticed small blisters on the left wrist and left leg at birth. After five days the eruption appeared in the scalp, and on the right leg and right arm. It did not seem to itch. The child, who was otherwise perfectly well, was admitted to hospital when 18 weeks old. At that time she had an extensive papulo-vesicular rash on the upper and lower limbs, and a few lesions on the scalp (Fig. 3). There was a hyperkeratotic plaque on the dorsum of the left hand involving the fourth and fifth fingers (Fig. 4). Nails and hair were normal. There was no other abnormality except an eosinophilia of 56%. During her 6 weeks stay in hospital the acute eruption cleared up considerably, as did the horny lesions on the left hand.

Examination of the mother's stools revealed *Lamblia intestinalis*.

FIG. 3

I did not see the child again until September 1951, when she was 4 years of age. The mother then said that within three months of discharge from the ward the vesicular eruption had completely disappeared. The verrucous lesions on the left hand dropped off, leaving bleeding pinholes. When one year old the baby developed nettle-rash. She started talking when 10 months old and walking when she was one year old. Mother said that she was a very intelligent child.

On examination, the vertex showed diffuse alopecia with atrophic scarring of the scalp, which looked glossy, as in scleroderma. The mother said that when the child cried the atrophic area became conspicuously red.

Both sides of the chest showed a characteristic pattern of pigmentation, which also involved the regions of both nipples and the left groin. The colour was chocolate brown and the unit lesion was macular, consisting of linear streaks, in some places arranged in whorls (Fig. 5). The back also showed some pigmentation, which resembled in its shape miners' tattoo. There was still some roughness of the left little finger as a residue of the hyperkeratosis, and the left heel exhibited patchy hyperkeratosis.

FIG. 4

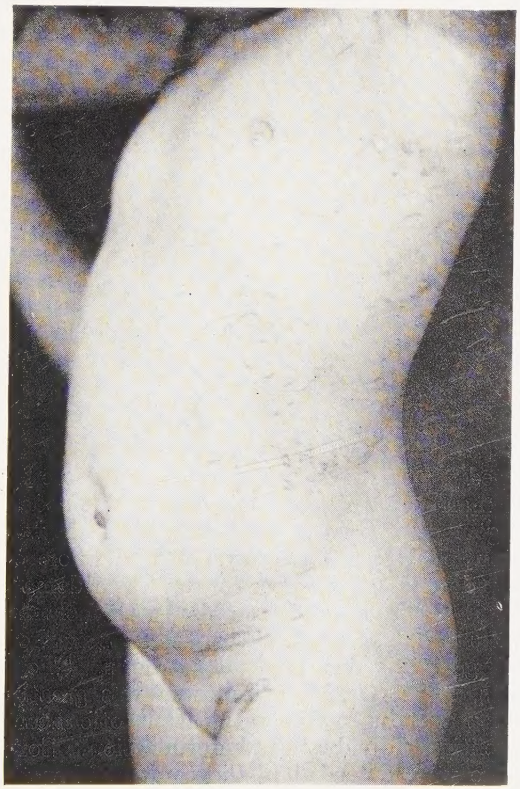

FIG. 5

Dr. D. Smith made the following report on the teeth :

"On dental examination it was found that three deciduous teeth $\left(\frac{EB|}{|D}\right)$ were not present in the mouth. The remaining teeth were normal and well formed. There was no caries, and the parodontal condition good. Radiographs confirmed the absence of $\frac{EB|}{|D}$ from deciduous dentition, and showed the absence of $\frac{2|2}{|}$ and probably absence of $\frac{54|45}{5|45}$ from permanent dentition."

Histopathology.

Case I.—Four biopsies were performed :

(1) Normal-looking skin treated with dopa showed a normal distribution of dopa-positive melanoblasts along the epidermo-dermal junction.

Fig. 6

(2) Raised pigmented papule : The epidermis showed loose hyperkeratosis extending into the follicles, marked acanthosis and considerable oedema of the basal layer leading to a disarrangement of normal architecture. There were many degenerated cells with pyknotic nuclei lying within vacuoles, and whole cell-groups segregated from the rest of the epidermis. The upper corium was oedematous with mild round-cell infiltration and many chromatophores laden with melanin (Fig. 6).

(3) Verrucous lesions : (*a*) The stratum corneum was markedly thickened, hyperkeratotic masses being arranged in irregular whorls. The stratum granulosum contained 8–10 layers. The stratum spinulosum was greatly increased in depth with marked irregular acanthosis. Within the acanthotic areas there were numerous hyaline bodies representing individual cell keratinization. Some contained shadows of their nuclei. These were extruded in the course of keratinization and seen in great numbers within the stratum corneum, where they appeared as eosinophilic cells, or cells which still contained their pale nuclei, or alternatively as basophilic cells containing basophilic granules, apparently from dissolved chromatin (Fig. 7).

FIG. 7

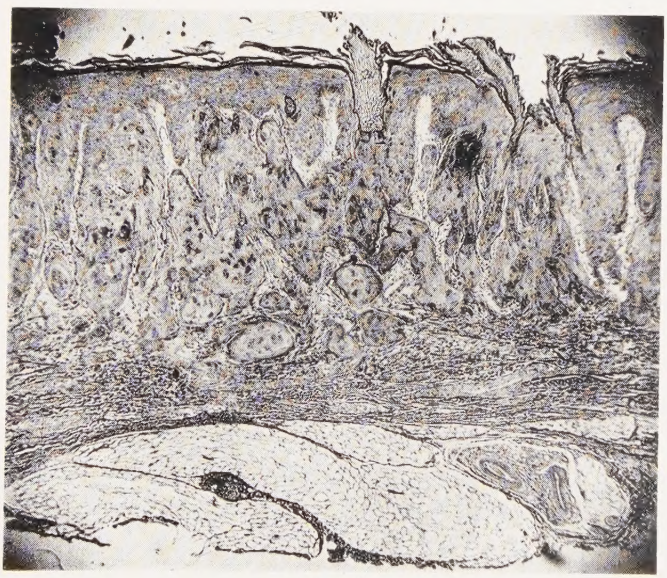

FIG. 8

(*b*) This showed similar features, but acanthosis was more regular and exhibited large pale cells, with prickles hardly visible, forming a syncytium rather than a "rete". There were also numerous large star-shaped strongly eosinophilic cells, with pale or no nuclei. One's first impression was that of a low-grade squamous epithelioma (Fig. 8). Great numbers of ghost cells were also seen in the stratum corneum.

Case II.—Biopsy of a verrucous lesion revealed the same histology as in the verrucous lesions of the first case. Biopsy of normal-looking skin treated with

dopa revealed normal dopa-positive melanoblasts arranged within the basal cell layer. No biopsy was performed on a pigmented patch.

Case III.—Biopsy of a pigmented patch showed no abnormality.

Discussion.

Too much emphasis has been laid upon the pigmentary "anomaly" as if it were the decisive feature. Any biopsy reveals but an instant of pathologic happening and may, therefore, reveal merely a particular stage of a process. A bullous eruption which heals, leaving pigmentation and atrophy, will, histologically, reveal only a certain stage of that process and it is therefore not surprising that differing histological pictures are obtained. As Bloch pointed out, the microscopic picture of pigmentary incontinence is not diagnostic of the condition.

The basal cell layer derives its pigment from melanoblasts, which inject pigment into its cells. Masson (1948) calls these cells cytocrines, and regards the process as a special kind of secretion. The pigment thus transferred into the basal cell is discharged by way of normal growth into the epidermis, where it appears as fine granules within the stratum corneum. This is well shown in the pigmented skin of Africans or Indians. Some pigment, however, drops into the cutis, partly as granules and partly in solution, to be picked up by chromatophores, wherein it may remain a long time. It is well known that when there is inflammation immediately under the basal cell layer, liquefaction necrosis of basal cells may occur. As a consequence pigment granules drop into the papillary layer, there to be found within chromatophores. This mechanism is called pigmentary incontinence (Miescher, 1922), and occurs in lichen planus, lupus erythematosus, Civatte's poikiloderma, Jacobi's poikiloderma and Riehl's melanosis. This liquefaction necrosis may then lead to atrophy.

As seen in some cases, liquefaction necrosis of the basal cell layer leads to separation of individual basal cells, which undergo hyalinization, and appear in the normal course of shedding as ghost cells within the stratum corneum. The dyskeratotic cells described in the biopsies of the verrucous lesions are of this origin. The verrucous hyperplasia is probably due to some stimulus, which, when it subsides, leads to involution of the hyperkeratosis, as in a common wart. The verrucous lesions therefore are not epidermal hard naevi, for these never disappear spontaneously. They are of inflammatory origin, as is the bullous eruption.

The cutaneous manifestations are sometimes accompanied by other ectodermal or mesodermal defects and the picture varies markedly with each individual case. But it seems to the writer that the pigmentation left after the process has subsided is a constant feature in all cases. It may be accompanied by other defects or may be the sole abnormal manifestation. It seems

reasonable to assume that all the manifestations of this syndrome are of the same origin.

It is suggested that incontinentia pigmenti may be due to an infection of the mother during pregnancy.

Miller and others (1950) in their paper on disseminated cutaneous herpes simplex review the literature on congenital malformations due to dermatotropic virus infections in pregnant women. Congenital defects which have been considered to be due to dermatotropic virus infections in pregnant women include cardiac and dental abnormalities, mental defect, cataract, glaucoma and microphthalmia. Many authors emphasize that besides rubella, mumps, zoster, scarlet fever, varicella, influenza, hepatitis, smallpox and poliomyelitis in the mother during pregnancy may be responsible for the development of foetal deformities. It is not unreasonable to submit that the Bloch-Sulzberger syndrome may be due to intrauterine infection by some unknown virus. Future cases should be investigated from this viewpoint, and cases in the bullous stage should be referred to a virus expert for investigation.

Children attending orthodontic departments should be examined for other ectodermal and mesodermal defects, and especially for the peculiar pigmentary pattern which the author considers to be pathognomonic of the condition in its later stage. It may thus be possible to trace cases which have evaded diagnosis.

Since the first case was described the condition has been called incontinentia pigmenti (Bloch-Sulzberger). This, I think, is not wholly satisfactory, as the pigmentary incontinence is only part of the syndrome, and, striking as it may be, is not the most important part. Goldsmith (1948) pointed out that the name is inadequate. Pigmentary incontinence is a histological concept that in all conditions where there is liquefaction necrosis of the basal layer the cells are unable to hold their pigment, so that melanin escapes into the corium, to be picked up by chromatophores, leading to autochthonous tattooing of the upper cutis (Miescher, 1922). That this phenomenon occurs in many other skin conditions has already been pointed out.

Since pigmentary incontinence is not limited to the condition under discussion, one is not justified in retaining the old name. As this syndrome shows many other characteristic features I would suggest the name "the Bloch-Sulzberger syndrome."

Summary.

Three cases of the Bloch-Sulzberger syndrome are described and the literature reviewed.

The characteristic features are :

(1) A bullous eruption on the body at birth or soon after, followed by pigmentation, sometimes atrophic, of a peculiar and characteristic pattern, never seen in any other dermatosis.

(2) These dermatological manifestations may be accompanied by ectodermal and mesodermal defects.

(3) It may be familial.

(4) The histology of the pigmentary dermatosis is characteristic, but not diagnostic, as it may occur in many other conditions.

(5) The name incontinentia pigmenti is inadequate for the clinical disorder as a whole, and it is therefore suggested that the condition should be known as the Bloch-Sulzberger syndrome.

(6) It is tentatively suggested that the condition may be due to a virus infection of the mother during pregnancy.

I wish to thank Dr. R. T. Brain for permission to publish the cases. I also would like to thank Dr. Grossman and Dr. D. Smith for their help with the dental diagnosis and examination.

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ON THE PATHOGENESIS OF INCONTINENTIA PIGMENTI.

With Observations on an Associated Eye Disturbance Resembling Retrolental Fibroplasia.

G. H. FINDLAY.

Department of Internal Medicine, University of Pretoria.

Incontinentia pigmenti is probably always the pigmented relic of a preceding inflammatory dermatosis. The nature of this primary disorder, the mode of its conversion into the clinical picture of incontinentia pigmenti and the classification of these processes are nevertheless obscure.

The primary skin condition is present at birth or develops soon afterwards. It appears to be a macular or diffuse erythema which is characteristically associated with lichenoid papules and bullae arranged irregularly or in stripes. These bullae are liable to rupture and may lead to oozing and crusting (Haxthausen, 1944 and 1945; Kalz and Mackenzie, 1947; Heilesen, 1948; Uebel *et al.*, 1950; Doornink, 1951). This condition is soon replaced by typical incontinentia pigmenti. The process of transition is not easy to follow, since most published reports are concerned with established cases of incontinentia pigmenti in which the original dermatosis had completely disappeared.

The pigmentary stage persists for a number of years, after which the pigment tends to disappear spontaneously. It has also been observed that warty growths and heavy cornification may be associated with the pigmented phase (Beintema, 1934; Heilesen, 1948; Sulzberger and Bloom, 1948; Haber, 1949). This feature is relevant to the case described below.

By incontinence of epidermal pigment one understands a failure of the epidermis to retain melanin, which then drops into the corium instead. This process is common to so many dermatoses that one cannot define incontinentia pigmenti in these terms (Doornink, 1951). The clinical picture is a great deal more characteristic, and the pigmented stripes and forks are recognized by their bizarre and irregular distribution.

However, by a study of my own patient and the published illustrations of other cases, it was evident to me that the pigmentation is not as haphazard as has been supposed. In fact, the basic pattern follows the so-called naevus lines, empirically determined by Blaschko in 1902. For an account of these lines Siemens's (1949) book may be consulted. I now find that Carol (1948) has arrived at the same conclusion. One may therefore anticipate that the

primary dermatosis, if incontinentia pigmenti is its end-result, will also follow Blaschko's lines.

Eight at least of the twenty-five reported cases of incontinentia pigmenti have shown abnormalities of the eyes. Squint and blindness have been observed, and in one or two instances there have also been eye disorders in the relatives of patients. As far as I can determine, six of the reported cases probably showed retinal detachments, and of these four were thought to have gliomas or pseudogliomas. Uebel *et al.* (1950) were apparently the first to point out that the eye condition was consistent with the diagnosis of *retrolental fibroplasia*.

Characteristically, retrolental fibroplasia is a bilateral retinopathy of premature infants. The eyes are usually normal at birth, but soon afterwards there develops a dilatation and tortuosity of the retinal arteries and veins with pseudo-angiomatous zones and haemorrhages. Complete regression is still possible, but usually the process is followed by an oedema and elevation of small areas at the periphery of the retina which come forward to lie at the back of the lens. These detachments tend to fuse with one another, and subsequent fibrosis produces a retrolental fibroplastic membrane. Where this has occurred blindness is naturally invariable, and a number of secondary eye changes may also result (Lelong *et al.*, 1951).

Resembling retrolental fibroplasia at times is *ablatio falciformis*, or retinal fold (Weve, 1938). Reese (1949) emphasized that it could not always be distinguished from retrolental fibroplasia, although ablatio falciformis is usually congenital, often unilateral, probably hereditary and is not associated with premature birth. Moreover, there seems to be a connection between ablatio falciformis and congenital detachments or pseudogliomata (Mann, 1935). The cases are hard to classify, but the eye changes of incontinentia pigmenti resemble these intermediate varieties more closely than typical retrolental fibroplasia.

I present here a typical case of incontinentia pigmenti with details of its primary phase, the effects of cortisone upon it, observations on the associated eye disorder and a study of the skin and eye changes in the patient's mother.

Case Report.

A European female infant who had no skin lesions at birth, apart from small callosities on the left hand and foot, developed an eruption of red papules on the distal parts of the extremities when fifteen days old. For two weeks the rash spread up the limbs and eventually the face and trunk were affected. Though discrete at first these papules were eventually grouped into irregular plaques and bands. Some plaques then developed watery bullae upon them, while the distally situated lesions began to turn brown. At this stage the left side of the body was seen to be distinctly more affected.

I saw her first when she was two months old (Fig. 1). The eruption followed the S-shaped curve on the chest and abdomen and V-shaped notch next to the vertebral

column which are the characteristic features of Blaschko's system of naevus lines. *Erythema* without infiltration was present in lines along certain parts of the naevus system. The posterior third of each sole and the nail roots of the toes also showed a cyanotic erythema. The main lesion, however, was a violaceous flattened *papule*, 2–4 mm. across, characterized by its hardness and mobility over the subcutaneous tissue. Shiny micropapules were also present. Except for the few erythematous lines the entire system of markings on the patient was composed of chains, plaques and strands built up of these papular units. Where large plaques or keloid-like stripes were produced, papule formation could still be seen on top of these areas. The plaques were violaceous and firm to the touch, and showed active sweating with partial loss of lanugo hair on the surface. *Pigmentation* was commencing along with involution of the rash. The larger papules and plaques tended to become diffusely pigmented, but smaller papules involuted with peripheral pigmentation

FIG. 1.—Incontinentia pigmenti.

only. This pigmentary metamorphosis was frequently incomplete, and the pattern was therefore full of T-shaped and zig-zag lines. Stripes with dark thickened nodes along them, arcs, circles and reticula were notable. In some areas the pigment pattern represented as it were the negative image of the preceding rash, the central parts of the primary lesions having subsided without pigmentation. Crusted remains of *bullae* were seen on the right ankle and wrist. On the left forearm the striate lesion showing *scaling*. There were also a few small solid *keratoses* on the left sole and at the bases of certain toe- and finger-nails. The dermatosis did not affect the flexures, medial aspects of upper and lower limbs, palms or hairy scalp, except for a large plaque on the forehead running into the anterior hair-line. Hair and nails were normal, except for the changes in the lanugo hair already noted.

The left pupil was a little smaller than the right and the child tended to keep the left eye closed. There was no pupillary response to light, and no attempt to follow a light source on the left side. This eye was apparently completely blind. The right eye was normal in its reactions and on ophthalmoscopic examination. Examination of the fundi under general anaesthesia (Dr. E. A. Donegan) showed the following abnormalities in the left eye :

The disc was white, approximately normal in size, and was located in a poorly defined oedematous area. No tumour masses could be detected. All the retinal vessels and the whole choroidal bed were grossly dilated. The veins were about three times the normal diameter and appeared as if segmented. The arteries were distinguishable by being slightly less purple in colour, only slightly narrower than the veins and not segmented. Dilatation of the choroidal bed gave the appearance of streaky haemorrhages radiating from the disc. There were several areas containing punctate haemorrhages. Apart from the disc there was no suggestion of oedema in the central area. Greyish elevated areas were noted on the periphery at 3, 6 and 9 o'clock. The area at 6 o'clock was the largest, and extended about 8 mm. from the ora towards the equator. No ciliary processes were seen. There was no evidence of inflammatory disturbance. The vitreous was clear, and the anterior chamber somewhat shallower than normal for the baby's age. The findings were considered to be in keeping with the early stages of retrolental fibroplasia.

Histology.—Three pieces of skin from representative lesions were excised for histological study, and these showed the following features :

The epidermis was in places normal, but tended in general to show some increased mitoses with acanthosis and occasional acantholysis. Hyperkeratosis with a little keratotic plugging and areas of parakeratosis were also observed. Vacuolation of many cells throughout the prickle-cell layer was noted in one specimen with migration of leucocytes, especially eosinophils, through the epithelium. In another, where there was no abnormal intracellular oedema, the number of clear cells in the basal layer was not increased. Practically speaking there was no melanin in the epidermis. Dermal chromatophores with coarse melanin granules were numerous, but were not intimately related to the identifiable clear cells of the basal layer (melanoblasts). The upper corium showed a widespread oedema, which in one preparation extended down to involve the entire thickness of the corium. In the oedematous zone the collagen stained faintly but was otherwise normal. Around the capillaries but also scattered throughout the corium were collections of monocytes, histiocytes and eosinophils, and occasional lymphocytes and neutrophils as well. Mast cells were fairly plentiful. In the oedematous areas there was a prominent increase of fibroblasts. The vascularization of the tissues was normal, but the vessels were wide and tended to show endothelial thickening. Intimal proliferation was occasionally seen. In the tissue removed from the plaque on the forehead there were numerous large bundles of smooth muscle fibres in the cutis showing inter- and intracellular oedema. They were bigger than the arrector pili muscles, and probably represented the so-called musculi cutis diagonales (Schumacher, 1931). The epidermal appendages, nerves, fat, reticular and elastic tissue and a piece of somatic striated muscle were virtually normal.

Progress.—A week's treatment with penicillin injections produced no skin changes except pruritus with a slight absolute eosinophilia in the blood. Cortisone was then given intramuscularly (10 mg. 6-hourly). The drug was discontinued after the 14th day because water retention had developed. Three days after the start of cortisone treatment the skin began to alter rapidly. The violaceous colour of the papules and plaques became light pink, and there was an almost complete loss of infiltration in them. Some patches lost pigment by exfoliation through the superficial scales (return of "continence"), while much of the deeper pigment seemed simply to disappear. Scaling and keratosis formation was considerably enhanced.

Two months later the plaque on the forehead was atrophic, pigmented and slightly scaly, and resembled scleroderma *en coup de sabre*. All papules, pigment and keratoses had disappeared from the right half of the body, and the trunk lesions were only just discernible as a faint dusky grey discoloration. Infiltration was absent. Some additional keratoses had appeared on the left foot sole forming a keratotic stria, while on the left arm, elbow, thigh and knee the surviving striae had

assumed a keloidal aspect and were covered in places with abundant unpigmented horny tissue. Apart from the atrophic patch on the forehead the skin condition was therefore reduced to a few horny striae and plaques on the left upper and lower limbs. At this stage the diagnosis of naevus unius lateris would have been acceptable.

Three months after treatment with cortisone an erythema was said to have returned to all the previously affected sites and the pigmentation again became intense. Examination four months after treatment showed a complete return of the pigmentary pattern. There were also occasional erythematous macules but no infiltration. The hyperkeratoses had progressed further. The retinal detachment at 3 o'clock had become clinically visible as a mass behind the nasal side of the lens. On ophthalmoscopic examination it was found to have extended considerably and had fused with the detachment at 6 o'clock. The further course of the eye changes was thus typical of retrolental fibroplasia.

Family history.—The child's *mother* had a band of reticular pigmentation over the right shoulder and right side of the neck, coming over the middle of the clavicle to the sternum. It showed no scaling, atrophy or infiltration, and had been present as long as she could remember. Histologically the pigment was an abnormal accumulation of melanin in the basal epidermal layer below which lay a few dermal chromatophores. There was no epidermal proliferation or other abnormality. The diagnosis was therefore *systematized ephelis.*

According to her somewhat unreliable story this woman claimed to have had normal vision in both eyes until an attack of measles at the age of four, when the left eye went blind and began to show an external squint. Dr. E. A. Donegan reported complete blindness in the left eye with a fixed dilated pupil. Centrally the vitreous was perfectly clear, but a mass of dead-white tissue extended into the vitreous between 4 and 6 o'clock from the periphery, reaching approximately to the equator. Posteriorly the retina itself showed many folds, and centrally there was a large mass of retinal and choroidal scar tissue over which normal retinal vessels still ran. No disc as such could be located, the retinal vessels disappearing in an area immediately temporal to the scar just mentioned. The tissue through which they ran was apparently under tension as if it were retina drawn over the disc from its temporal side. The essential abnormality was apparently subretinal in position as the vitreous showed no primary bands or adhesions. It seemed probable that this was either a case of partial retrolental fibroplasia which had become quiescent or an unusual variety of ablatio falciformis. The clinical appearances were not compatible with those of endophthalmitis following measles, and it was concluded that the patient's history of its mode of origin was not reliable.

A maternal aunt of the child was said to have freckles on the neck like the mother. The child's only sib, an elder brother, was examined and had normal skin and eyes. The family history was otherwise negative.

General history. The baby was born at term after a normal gestation and easy breech delivery, and weighed 5 lb. 12 oz. (2·6 Kg.). The left leg was lame for the first few days. While under my care the child was found to have no abnormalities of importance on clinical, radiological and laboratory examination apart from the skin and eye manifestations.

Comment.

No suggestions appear to have been made about the nature of the primary dermatosis in incontinentia pigmenti. It must be regarded either as a unique condition or classified as a variant of a known dermatosis.

Of the striate lichenoid disorders lichen planus and lichen striatus do not resemble it histologically (Pinkus, 1948). Assuming that it does not represent an unknown dermatosis, it seems reasonable to suggest that this condition

is equivalent to the initial lichenoid stages of guttate and band-like scleroderma. Widely as localized scleroderma may differ, there are some arguments which support such a resemblance. Band-like scleroderma has been observed in infancy, and at this time particularly it carries a good prognosis (Cockayne, 1916). The patient described above showed lesions of a peculiar hardness, a sabre-cut type of lesion on the forehead, a distribution of the trunk lesions along Blaschko's lines and a histological picture consistent with this stage of localized scleroderma. Incontinentia pigmenti would then be left after its disappearance.

Summary.

A female infant with incontinentia pigmenti is described. It is suggested that incontinentia pigmenti is the residuum of a transitory guttate and band-like scleroderma of the newborn. The early stage of an eye disturbance is studied, from which about a quarter of the cases of incontinentia pigmenti appear to suffer. It resembles retrolental fibroplasia, but a primary blindness, an allied eye disturbance in the mother, sex-linkage (females), its asymmetry and lack of association with premature birth place the condition nearer to Weve's ablatio falciformis. Treatment with cortisone caused all the baby's skin lesions to disappear with the exception of a plaque resembling scleroderma *en coup de sabre*, while a few keratotic striae resembling naevus unius lateris developed. It is pointed out that hyperkeratoses and naevus unius lateris have been known in cases of incontinentia pigmenti untreated with cortisone.

Three months after cortisone treatment the skin condition relapsed completely although the infiltration did not return. The retinal detachments also became more extensive and began to fuse behind the lens.

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VASCULAR NAEVI AND THEIR TREATMENT.

REGINALD T. BRAIN, M.D., F.R.C.P.,
AND
CHARLES D. CALNAN, M.D., M.R.C.P.

MUCH confusion has arisen because of the lack of an accepted nomenclature of these congenital abnormalities of the skin. The terms "naevus flammeus" and "port-wine mark" which might aptly be applied in the first case to a red, flame-coloured naevus and in the second to a deeper, purplish mark are, unfortunately, loosely applied to any pink or red naevus. In consequence, some reports suggest that certain measures of treatment are very satisfactory for port-wine marks when the lesions which responded were of the pale variety which, in some cases, fade spontaneously. It is considered more satisfactory to speak of the macular naevi as being *superficial* or *capillary*, and the raised or deep naevi as being *cavernous*. When a cavernous naevus has a red or purple discoloration of its surface, it will avoid confusion to describe it as a *capillary-cavernous* haemangioma.

CAPILLARY NAEVI.

The capillary naevus may consist of a solitary telangiectatic pattern in which the central arteriole is a prominent red spot from which the capillaries radiate in the form of a star, or resembling the body and legs of a small red spider. This lesion is commonly described as the *stellate* or *spider* naevus, and it is best treated by destroying the central vessel with some form of cautery. A useful technique is to cut an orange stick to a fine point and soak this in 80% trichloracetic acid solution. The point is then firmly pressed into the central red spot and held for a minute (almost, but not necessarily, breaking the skin). A child tolerates this slightly painful procedure very well and, with a little practice, a high percentage of success can be obtained. The destruction of the central vessel with a red hot galvanocautery with the finest available point, is undoubtedly more certain, although more painful. A pencil of CO_2 snow cannot be made fine enough to be effective.

Sometimes telangiectatic vessels are numerous as in the familial hereditary haemorrhagic telangiectasia described by Osler. Often the fine vessels may be picked out with a galvanocautery point, although a somewhat better cosmetic effect may be obtained more tediously by electrolysis. The fine venules which appear later in life on the thighs and on the legs of young women may

be treated by similar measures, but these larger vessels are more difficult to obliterate and most dermatologists are reluctant to treat them at all.

The usual capillary naevi occur as small or large macules, with tints varying from the palest pink through shades of red to the deep purple of the port-wine mark, and the deeper the colour the worse the prognosis. Many of the pale pink birthmarks affecting the middle of the nape of the neck and of the forehead tend to disappear spontaneously in a matter of weeks or months. Some of the red marks will fade but the deeper red marks and purple marks persist.

Treatment.

Freezing with carbon dioxide snow is, perhaps, the most popular method of treating these types of macular naevi, and, because freezing primarily affects the superficial layers of the skin, it is not suitable for the deeper naevi. The smaller marks may be treated with solid pencils of CO_2 snow, firmly applied for 20–60 seconds, and the larger irregular areas may be frozen by rolling a pencil of snow over the surface, or by the application of a CO_2 slush. This is made by adding a little acetone to some powdered CO_2 snow in an insulating container, such as a bakelite pot or an egg cup. The slush is applied with a small brush or with a cotton-wool swab twisted round an orange stick. It is swept swiftly over the birthmark and the operator should have a pledget of cotton-wool to wipe away any slush or freezing liquid which overflows the boundaries of the mark. Two or three rapid applications will freeze the area into a stiff plaque which, on thawing, becomes red and oedematous. A good reaction with mild vesication of the surface is essential or the resulting damage to the unwanted capillary vessels is likely to be negligible. An interval of two months is desirable between treaments so that the full effect of the previous treatment can be observed : if three or four treatments do not produce a marked improvement, it must be assumed either that the treatments were inadequate, or that the particular naevus was refractory.

The freezing method is painful and so the technique of using thorium X was welcomed. Thorium X is a radioactive substance which emits alpha, beta and gamma rays. It is obtained either as a solution in spirit, or in a varnish form,* and the strength recommended is 1500 electrostatic units per c.c. The date of its intended use should be stated because the substance has a half-life of just under four days. The surface to be treated is thoroughly cleaned with ether or alcohol, and then painted evenly with the varnish. It should not be disturbed or washed for at least a week, or preferably ten days, by which time the radioactivity of the application will have fallen to one-fifth or less of its original potency. An erythematous reaction to the painting develops within twenty-four hours and, in some cases, may lead to mild vesication. Vesication is unusual, although a few cases of apparent sensitization to thorium, or to its

* From Messrs. Derby & Co., 11–12, St. Swithin's Lane, London, E.C.4.

solvent, have been marked by an acute eczematous eruption. Some brownish pigmentation often develops round the edges of the treated area, but this will fade in time. Treatments are usually repeated at monthly intervals and many of the pale pink marks disappear almost completely—aided, one suspects, by a natural tendency to disappearance. The deeper tints of the red marks are likely to be detectable even after twenty paintings, while the port-wine marks usually retain their purple colour even after forty or fifty monthly paintings, although many will have their brilliance clouded by a pale bloom. Little is to be gained and some risk may be incurred by exceeding 20 paintings.

The purple capillary naevi provide the greatest disappointments in treatment, and although the smaller ones respond more satisfactorily to a cautious treatment with beta radiation from an unscreened radium plate, it is often necessary to produce some atrophy of the skin before the purple colour disappears. It is doubtful whether this undesirable result is a cosmetic improvement. Perhaps better results will one day be obtained with the harder beta radiation obtainable from a radioactive isotrope, but at present no method of treating this type of birthmark can be regarded as satisfactory.

Cavernous Naevi.

Cavernous naevi, or haemangioma, may be regarded as tumours of blood-vessels; they may lie in the deeper layers of the skin, and merely show as a soft bulging of the surface with a bluish tinge indicating the prominence of venous spaces. Sometimes involvement of the superficial capillary vessels accounts for reddish or purplish discoloration on the surface of the swelling. Small raised capillary-cavernous haemangiomata are sometimes described as "strawberry marks"—a less satisfactory term. It seems likely that the majority of lesions of this type exist as an ante-natal defect in the pattern of the superficial and deep vessels of the skin and sub-cutis. The low blood-pressure of the newborn is insufficient fully to extend the vascular spaces, but as the child becomes stronger the lesions become more raised and conspicuous and the parents are usually greatly concerned by what, to them, is a rapid rate of growth. Any increase of venous pressure, such as occurs in association with coughing, constipation or fits of temper make the lesions much more prominent, as would be expected. However, in the majority of cases the lesions may be described as anaplastic because they conform to the original pattern of the defect, and the haemangioma only distends to its limit; after persisting for three to six years it nearly always disappears, leaving little trace. When the skin has been much stretched and thinned over a prominent tumour, resolution leaves in its wake a thin, wrinkled, somewhat atrophic integument which may call for minor plastic surgery.

Some parents are anxious lest these vascular tumours bleed, but they may be assured that bleeding from venous spaces is very easily arrested with a

simple dressing and light pressure and need be no cause for alarm. More commonly, a slight break in the surface of a capillary-cavernous haemangioma leads to infection, and as the defences of the skin cannot be mobilized in large areas of haemostasis and thrombosis the resulting process is a chronic one and commonly lasts for several months. It can be imagined that such a lesion presenting an irregular ulcerating surface surrounded by firm, raised edges due to thrombosis may readily be mistaken for a fungating sarcoma or epithelioma, and a biopsy or a dermatological opinion may prevent the unnecessary amputation of a limb.

While the majority of cavernous and capillary haemangiomata extend to what must be a pre-determined pattern and extend very slowly, a small haemangioma of an apparently similar type may not be noted until a few days or weeks after birth and may then proceed to grow alarmingly. In this way, for example, an insignificant lesion may produce gross thickening of the cheek and extend to fill the hollow of the neck, or it may produce gross distension of the soft tissues about the orbit, completely closing the eye. Even this type, which may be described as hyperplastic, fairly rapidly reaches its limit; it is a mystery why the vaso-formative tissue exhibits this alarming delayed action and what factors ultimately contain it. Histological studies have failed to enlighten us, and it is curious that sometimes, in later life, telangiectatic naevi may suddenly become extensive and almost cover either one or both limbs, the legs being most commonly involved. To add to the mystery, certain drugs such as sedormid or adalin produce eruptions essentially telangiectatic and the mechanism of their actions has yet to be explained.

Treatment.

It has long been known that most of the cavernous and mixed naevi disappear spontaneously in childhood and that they are met with extremely rarely in adults. There is therefore no indication to treat such naevi when they occur in the scalp or on parts of the body which are usually hidden by clothing. If the capillary-cavernous haemangioma is on the face or exposed parts of the limbs, its disappearance may be hastened by the cautious use of radiotherapy, or the deep tumour may be thrombosed by the injection of hypertonic salt solution or small amounts of alcohol, tincture of iodine or dilute hydrochloric acid. The coagulants used in the treatment of varicose veins are usually ineffective in the treatment of these congenital lesions. The x-ray dosage recommended is 200–300 r at 60–90 kV., repeated at two or three months' intervals until a total dosage of 1200–1500 r has been given. In some cases although unnecessary it is thought worth while to allay a parent's natural anxiety by giving occasional doses of this sort at 6–9 months' intervals. The gamma rays of radium in subatrophic doses may also be used, but since the treatment usually takes much longer than x-ray therapy there is no particular

advantage in using radium. The exception is in the case of the very slightly raised mixed naevus which may be multiple. Such lesions react well to beta radiation from a half-strength radium plate containing 2·5 mg. of radium element evenly distributed over each square centimetre of the active surface of the plate. The plates are protected with unvulcanized rubber sheeting and the skin a little outside the margin of the lesion is protected with thick lead foil. The plates are usually applied for one hour and it is rarely advisable to repeat the treatment. No doubt much parental anxiety is allayed by judicious treatment on these lines, but much of the credit for the ultimate good result belongs to nature. There remains the question of the hyperplastic lesion, and if this can be recognized the earlier the small lesion is destroyed by some coagulating injection the better. Indeed, it is probable that in all cases if it is desirable to treat a vascular naevus, the earlier that treatment is given the more satisfactory the result is likely to be. This is not entirely because some of the paler capillary naevi and most of the cavernous naevi tend to disappear spontaneously.

Results of Treatment.

A series of cases of vascular naevi has been analysed from the point of view of results of treatment. The cases are taken from the records of the Dermatology Department at the Hospital for Sick Children, Great Ormond Street, London. The patients in this series were followed up either in the outpatient department or by questionnaire. In the latter case many mothers amplified their answers considerably and some sent photographs.

The series is in no respect a controlled one, and cannot be used as a comparison of the various methods of treatment; for the treatment of each case was at the discretion of the dermatologist at the time each patient was seen. It is clear, therefore that the more severe lesions will have been treated by active measures and the smaller ones allowed to resolve without radiotherapy. In general, however, naevi on the scalp, over the breasts, and often over epiphyses were left untreated.

Of 788 patients, 614 (78%) presented with capillary-cavernous or purely cavernous naevi, and 174 (22%) with purely capillary naevi. Stellate or spider angioma cases are not included. This analysis is concerned only with the results of treatment of the first group—capillary-cavernous and cavernous vascular naevi. The treatment given is shown below:

Radium	295 (48%)
X-ray	98 (16%)
Radium and x-ray	74 (12%)
No treatment	147 (24%)
	614 (100%)

FIG. 1.—Capillary-cavernous naevus. Girl aged five months; before treatment (December, 1942). A total of 726 milligram-hours of radium was given over a period of one year.

FIG. 2.—Same patient as Fig. 1, aged eight years (March, 1951).

FIG. 3. Capillary-cavernous naevus. Girl aged seventeen months; before treatment (October, 1939). A total of 240 milligram-hours of radium was given followed by excision of baggy skin.

FIG. 4. Same patient as Fig. 3, aged twelve years (April, 1951).

In all these cases the results of treatment were satisfactory. In only one case was the mother of a child dissatisfied with the result of therapy ; within six months of being seen at the hospital she requested surgical removal of the lesion, and this was arranged by her private practitioner. No instance of progressive extension of the lesions was encountered, either in the treated or the untreated group.

Involution takes place first in the subcutaneous or cavernous element, the lesion becoming flat when previously elevated or domed, and soon after the colour pales. Depending on the size of the naevus there may be pressure atrophy of the overlying epidermis and as involution proceeds this becomes more evident.

This pressure atrophy, which many mothers described as " like a burn scar," occurs irrespective of radiotherapy. No case of radio-dermatitis or x-ray atrophy has been seen. Associated with the atrophic epidermis at the end stage, one not infrequently observed irregular spidery telangiectatic vessels, especially when the original capillary element of the naevus showed a variegated pattern. The final satisfactory cosmetic result was achieved in some such cases by surgical excision of the loose baggy skin.

The results achieved are illustrated by the accompanying photographs of some of the larger lesions (Figs. 1—4).

It will be noted that 147 (24%) of the patients were not treated with any active measure. The ultimate results were equally satisfactory, although the process of involution was slower. Most patients had little evidence of their previous lesions to show at the age of seven years. However, as mentioned above, the larger lesions left a residuum of pressure atrophied epidermis with spidery capillary vessels. These were treated either by neat surgical excision of the affected skin, or the small spidery vessels were cauterized with the galvano-cautery or a chemical caustic.

THE WEST OF ENGLAND AND WALES DERMATOLOGICAL SOCIETY.

A Clinical Meeting of the Society was held at the Royal Infirmary, Cardiff, on 13 October 1951.

Acute Disseminated Lupus Erythematosus.—Dr. G. A. Hodgson.

A. J—, female, a teacher, aged **34.**

History.—In July 1948 she first developed an erythematous scaling eruption on both cheeks and over the bridge of her nose, which cleared completely after 3 months. It recurred in March 1949, this time more intense. She was treated with para-aminobenzoic acid cream and quinine sulphate tablets. Two weeks after the onset a papular erythema developed over most of the body, with pyrexia. The skin was not completely clear till 6 months later.

All her teeth were extracted during the period January–October 1950, and a few days after the final extraction of six teeth she again developed an erythematous scaling eruption over the face, similar lesions appearing on the hands and lower legs in December 1950. Facial oedema was then noticed for the first time, associated with increasing fatigue. There were no urinary symptoms or joint pains. At no time was she treated with antibiotics.

On admission to hospital (26.i.51) the skin showed areas of scaling erythema on the face, neck, hands and legs. Routine physical examination at this time showed no abnormality. Of the investigations carried out at this time the serum proteins and blood urea were normal. There was a moderate hypochromic anaemia with a leucopaenia of 3600 and a normal differential count. The urine showed a few pus cells and an occasional erythrocyte and the urea clearance was 85% of normal. E.S.R., 43 mm./hr. She was treated with bismuth injections and multiple vitamin therapy, and at the time of her discharge on 10.iii.51 was much improved although the skin was not completely clear.

On readmission (9.vi.51) she had apparently remained fairly well until two months after her discharge from hospital, when there was a gradual return of the previous skin lesions with facial oedema and increasing lassitude. On admission the patient was comatose with oedema and erythema of the face and neck; the eyes were swollen and crusted, as was the mucous membrane of the lips. Erythema was also present on the fingers, arms and legs. Temperature 104°. There were signs of pneumonia at the right lung base with generalized signs of bronchitis.

Past history and family history.—Infantile eczema.

Pleurisy in 1923.

" Nervous breakdown " in 1943.

Mother and sister alive and well.

Brother aged 44 has chronic discoid lupus erythematosus involving cheek and ear of 8 years' duration.

Investigations.—No lupus erythematosus cells were found in either the peripheral blood or sternal marrow (blood 25.vi.51; marrow 10.vii.51).

Blood urea: 11.vi.51, 61 mg. %; 2.vii.51, 55 mg. %. Repeated examinations for acid-fast bacilli in the sputum were negative.

Serum proteins: 11.vi.51, total 6·5 g. %; albumin 2·9 g. %.

Urine: 13.vi.51. Trace of albumin with granular and hyaline casts, epithelial cells and occasional leucocytes. (20.vii.51) albumin + +. Few leucocytes and occasional hyaline casts. (10.ix.51) distinct cloud of albumin. An occasional leucocyte.

Blood counts: During June September counts ranged as follows: Hb 39 90%; W.B.C. 3000–8000; platelets 6000–28,000; E.S.R. 21–78.

Treatment.—9.vi.51-2.vii.51, chloramphenicol 0·5 g. 6-hourly. 3.vii 18.vii.51, Cortisone 50 mg. daily by i.m. injections; 19.vii.51–3.viii.51, 25 mg. daily by i.m. injection; 4.viii.51 21.viii.51, 50 mg. daily by i.m. injection. 22.viii.51-21.ix.51, ACTH, 50 mg. daily by i.m. injection, and on alternate days since.

Blood transfusions: 11.vii.51, 1 pint of whole blood; 9.viii.51, 1 pint of whole blood; 25.viii.51, 2 pints concentrated red cells.

Progress.—The general condition when Cortisone was started was so poor that recovery seemed improbable. On Cortisone there was a prompt and steady improvement with some regression of the skin lesions and reduction of pyrexia. This clinical improvement has been well maintained. The E.S.R. remained at its former high level. As a result of changing the ACTH dosage to alternate days there was mild intermittent pyrexia, the patient complaining of returning joint stiffness with some slight tenderness of the interphalangeal joints. These symptoms disappeared with return to daily administration and did not recur despite progressive reduction in dosage.

Postscript.—ACTH 25 mg. daily was continued until 27.x.51. The dose was then gradually reduced and treatment was stopped on 10.xi.51. There has so far been no clinical relapse.

12.x.51: Serum sodium, 320 mg. %; serum potassium, 15·6 mg. %. Blood counts: Hb, 70 %; W.B.C., 4000–6000; E.S.R., 50-61.

Histology (25.x.51).—Skin of arm. There is hyperkeratosis and flattening of the epithelium with liquefaction of the basal layer. There is no cellular infiltrate to speak of.

Subacute Lupus Erythematosus with Joint Involvement. —Dr. A. J. Rook.

M. D—, female, housewife, aged 34.

History.—In July, 9 years ago, she developed a rash on her forearms, face and neck. This cleared after a few months, but recurred a week or two later and has persisted ever since with exacerbations in the summer. About 5 years ago she noticed pain and stiffness in her finger-joints; this has become progressively more severe, and for some time has greatly restricted her activities. For the last few months she has been feeling excessively tired but has not been confined to bed. For about 5 years she has had some frequency of micturition and occasional dysuria.

Past history.—Her past health has been good and she has never previously suffered from any skin disease.

On examination.—(11.ix.51) There is extensive lupus erythematosus in the butterfly areas of the face, on the dorsa of the hands and extensor surface of the forearms, and on the "V" of the neck. The dorsa of both feet and the left sole are similarly affected. The affected areas are covered by much parakeratotic scale and there is thickening of several finger-nails. These latter features produce a strikingly psoriasiform appearance (she has in fact been treated as psoriasis elsewhere for some years).

The hands are held rigidly in slight ulnar deviation with the fingers semiflexed at the carpometacarpal joints. There is no detectable swelling of the finger- or wrist-joints, but the patient is unwilling to move her fingers on account of the pain.

Her general condition is fairly good and a full clinical examination reveals no abnormality in any other system. Her blood pressure is 140/80.

Investigations.—Blood count: W.B.C. 4900; normal differential. Hb 57%. Slight anisocytosis.

E.S.R. 39 (Wintrobe). Corrected by P.C.V. shows a doubtful increase.

Heparin tolerance test normal.

Lupus erythematosus phenomenon not demonstrated from patient's plasma.

Serum protein total: 5·8 g. %; albumin: 4·3 g. % (Howe).

Histology. There are some keratotic plugging and atrophy of the epidermis, liquefaction of the basal layer, oedema, and some round-cell infiltration of the dermis. Lupus erythematosus.

Treatment. ACTH 25 mg. by i.m. injection 27–28 ix.51 ; 50 mg. 19.ix.51 present.

Progress. Since the start of ACTH therapy the skin has become much paler and there has been a marked reduction in the stiffness of the joints of her fingers.

Recent investigations : Blood : Hb 54 88%, W.B.C. 6200–8100. E.S.R. 21–35.

Serum protein, total, 7·4%; albumin, 4·2 g. %.

Histology shows liquefaction of the basal cell layer not as marked as in the previous section ; otherwise there is no change in the histological picture.

Postscript (12.xii.51).—The dose of 50 mg. ACTH daily was continued until 3.xi.51, then gradually reduced. ACTH was discontinued on 27.xi.51. All joint swelling and stiffness had disappeared and the extensive skin lesions had partly cleared. She felt fit. She was given mepacrine 300 mg. daily and was discharged home. On 12.xii.51 regression of skin lesions was continuing and the patient had been able to resume her domestic duties.

Exfoliative Psoriasis Treated with ACTH. Dr. A. J. Rook.

F. G., female, a clerk, aged 64.

History.—Patches of psoriasis appeared first in the groins and axillae at the end of 1948. They cleared after a few months but recurred in the winter of 1949 and gradually extended until by April 1950 the eruption was generalized. She was at that time admitted to an outlying hospital, whence she was transferred to Cardiff in May 1951. She was then suffering from a universal psoriatic erythrodermia. She showed some improvement during the next 3 months, the pruritus and exfoliation becoming decidedly reduced. Three weeks ago there was a sudden exacerbation, the entire skin surface becoming intensely erythematous within 24 hours.

Past history and family history.—No skin disorder. General condition always good. No psoriasis in family history.

On examination.—Universal psoriatic erythroderma. Scattered non-tender rubbery glands palpable in groins and axillae. Rough apical systolic murmur. Blood pressure 140/90.

Investigations. R.B.C. 4,500,000. Serum proteins 5·1 g. %, albumin 3·3 g. %. W.B.C. 16,000 ; polys. 56%, lymphos. 8, monos. 8, eos. 25, basos. 2, myelocytes 1%.

Treatment. ACTH 25 mg. daily, 29.ix.51–1.x.51 ; 50 mg. daily, 2.x.51–7.x.51 ; 100 mg. daily, 7.x.51–present date.

Progress.—Very striking subjective improvement and visible decrease in erythema was observed within 48 hours. Progressive diminution of exfoliation and subjective and objective improvement has been maintained and the skin has cleared almost completely.

Postscript (12.xii.51).—There was a gradual relapse of the psoriatic erythroderma as soon as the dose of ACTH was reduced from 100 to 50 mg. daily.

Comment.—Sulzberger *et al.* (1951) report complete clearing of the skin in about 2 weeks on this dosage. They found that a maintenance dose of about 12·5 mg. daily was required but the follow-up was short.

References.

Sulzberger, M. B., Saner, G. C., Herrmann, F., Baer, R. C., and Milburg, I. C. (1951) *J. invest. Derm.*, **16**, 323.

Dr. Wigley : I think the exfoliative psoriasis will probably recur when treatment is stopped. Cases may get well and relapse even without ACTH.

Dr. Frank Hellier : In Leeds we have been interested in the psychotic reactions which are sometimes produced by ACTH. A patient of ours with alopecia totalis was treated with ACTH, and towards the end of a three weeks' course he became very difficult in the ward and his whole character seemed to change for the worse. In most other cases under treatment the chief change has been the striking euphoria which occurs soon after treatment has begun. I might add

that in two cases of alopecia totalis we have had practically no result; in Besnier's prurigo sometimes results have been striking, but almost all cases have relapsed on cessation of treatment. In one case the patient became worse than she had ever been before.

Dr. Rook: This patient manifested such a striking change of mood while she was receiving 100 mg. of ACTH a day that we felt compelled to reduce the dose as rapidly as possible.

Prof. Scarborough: I wonder if anyone has noticed any withdrawal symptoms when the dose of ACTH has been reduced. Perhaps smaller doses than we are using at the moment will be found effective in these cases.

Dr. Hodgson: No symptoms occurred on reduction of the dose in the first of these cases and she is well maintained on a smaller dosage. The original discoid lesions on the face and hands, however, have not altered at all in the last few weeks.

Trophic Ulceration of Nose.—Dr. G. A. Hodgson.

Z. H—, female, a housewife, aged 65.

History.—In September 1949 the patient was given an injection of alcohol into the right Gasserian ganglion for the treatment of trigeminal neuralgia affecting the second division. There was some symptomatic relief for the next 12 months, but the pain gradually returned with increasing severity. She was seen again by the surgeon in July 1951. Immediately following the operation she developed erythema and vesicles over the side of her nose. Crusting and ulceration in this area was still present when seen again in 1951.

Past history and family history.—Nil serious. Four children alive and well. Husband in poor health for many years.

On examination.—There is a crescentric defect of the left ala nasi.

Trophic Ulceration of Nose.—Dr. A. J. Rook.

A. E—, female, a housewife, aged 59.

History.—Twenty-one months ago the patient developed redness and soreness of both eyes. This was considered by the ophthalmologist to be keratoconjunctivitis sicca. Crusting of the left nasal vestibule was observed at this time. A biopsy was later taken to exclude basal cell epithelioma and showed chronic inflammatory changes only. Progressive destruction of the left ala nasi has since taken place, with haemorrhage from the nose over the last 9 months. Numbness and loss of temperature appreciation have been present on the forehead (bilateral) for 9 months and on both cheeks for the last 3 months.

Past history and family history.—Hysterectomy for menorrhagia 1937.

Husband died from cerebral thrombosis.

On examination.—There is a sharply defined crescentic defect of the left ala nasi. There are bilateral ptosis and cataracts: the left pupil is larger than the right: no motor abnormalities of the fifth cranial nerve are present, but there is a loss of all forms of superficial sensation in the 1st division, partial anaesthesia of the second division area and hypoalgesia of the third division. Otherwise the rest of the central nervous system and cranial nerves show no abnormality.

Investigations.—Skiagrams of skull and chest are normal.

Blood W.R. and Kahn negative.

C.S.F.: clear; less than 5 cells/c.mm.; W.R. negative; protein 45 mg.%; chloride 740; Lange 3221000000.

Blood count: Hb 73%; W.B.C. 6600; polys. 73%, lymphos. 19, monos. 7, eos. 1%.

E.S.R. 51 mm./hr.

Comment.—This form of trophic ulceration is uncommon. It can occur in tabes, in encephalitis lethargica, after Gasserian ganglionectomy or injection or division of the sensory root of the trigeminal nerve.

Adson (1926) reporting 839 cases of trigeminal neuralgia treated surgically does not mention this complication. Harris (1940) analysing his results in 1433 cases states that it occurs in a small proportion of cases and that the ulcers heal after stellate ganglionectomy.

References.

Adson, A. W. (1926) *Ann. Otol. Rhin., Laryngol.*, **35**, 601.
Harris, W. (1940) *Brain*, **63**, 209.

Prof. Scarborough: It is interesting that cases have been reported to heal after cervical sympathectomy. This of course is what one would expect as all trophic disorders are essentially vascular in origin.

Congenital Arterio-venous Communication.—Dr. A. J. Rook.

V. L—, female, aged 21.

History.—At the age of 16 the patient first noticed a red mark on the dorsum of the left foot which was irritable and later became painful on walking. She consulted Dr. Bettley soon after the red mark appeared and a biopsy was taken at this time. The area gradually enlarged. She has noticed that the left foot is always warmer than the right and sweats more freely. Several times the affected area has ulcerated and the foot has become swollen. The pain has increased greatly in severity in recent months and walking has become difficult.

Past history and family history.—Anterior poliomyelitis when 3 years old, involving mainly the right leg with resultant shortening.

Mother, father and sister alive and well. No similar condition.

On examination (before operation).—Pes cavus deformity of the left foot with limited dorsiflexion. The dorsum of the left foot is noticeably warmer than the right, and even at rest beads of sweat can be seen over a circumscribed area of skin which overlies a group of conspicuously dilated subcutaneous veins. In the centre of this area is an irregular dull red lesion resembling a superficial cavernous haemangioma. Its surface is ulcerated. Pulsations can be clearly felt over the dorsum of the foot.

Measurements.—

Circumference.

	Right leg.	Left leg.
12·5 cm. below lower edge of patella	24 cm.	29 cm.
28 ,, ,, ,,	17 ,,	19·7 ,,
10 cm. above upper edge of patella	40·5 ,,	43 ,,

Length.

Lower edge of patella to tip of big toe	47 cm.	56 cm.
Anterior sup. iliac spine to medial malleolus	84 ,,	89 ,,

Skin temperatures (measured with Zeal's skin thermometer).

	Right leg.	Left leg.
Dorsum of foot	74° F.	95° F.
25 cm. below lower edge of patella	82° F.	94° F.
10 cm. above upper edge of patella	91° F.	95° F.

The poliomyelitis makes it difficult to evaluate the degree of lengthening of the left leg and also complicates the skin temperature estimations.

Investigations.— Skiagram of chest normal; ankle ? rarefaction of talus.

Venogram shows a large collection of aneurysmal veins over the dorsolateral aspect of the foot.

E.C.G. normal.

Treatment.—On 8.ix.51 left lumbar sympathectomy was performed.

Progress. Since the operation there has been no pain or excessive sweating, but pulsations are still palpable over the dorsum of the left foot, and the left leg below the knee is warmer than the right.

Skin temperatures.

	Right leg.	Left leg.
Dorsum of foot	82° F.	96·5° F.
25 cm. from lower edge of patella	87° F.	94° F.
10 cm. from upper edge of patella	90° F.	91° F.

Comment.—This case is very similar to the one shown at the Royal Society of Medicine by Forman and Holling in 1949. A persistent vascular naevus of an extremity should always raise the suspicion of underlying arteriovenous communication. The symptomatic relief which has followed sympathectomy in this case is rather striking. I have no doubt, however, that amputation will eventually be necessary.

REFERENCE.

FORMAN, L., and HOLLING, H. E. (1950) *Proc. roy. Soc. Med.*, **93**, 171.

27 other cases were also shown.

CURRENT LITERATURE.

MILKER'S NODULES WITH ALLERGIC SECONDARY ERUPTION. C. E. SONCK. (1951) *Acta allergol.*, **4**, 241.

Four cases of milker's nodules developed secondary exanthemata after an interval of 4, 12, 16 and 17 days respectively. The secondary eruption, which was believed to be an allergic phenomenon, was clinically and histologically eczematous in character and affected principally the hands, forearms and upper arms. H. T. H. W.

PARADRYL OINTMENT AND IDO TAR. K. WILKEN-JENSEN and K. BULOW. (1951) *Acta allergol.*, **4**, 274.

Paradryl ointment contains 2% β-(diphenylmethoxy)-ethyltrimethylammonium bromide in an oil-in-water emulsion. Ido tar consists of purified coal tar dissolved in an organic solvent to which has been added an indifferent phenol resin. A small series of cases of Besnier's prurigo were treated with these two substances with satisfactory results. H. T. H. W.

A NEW FOCUS OF ENDEMIC CUTANEOUS LEISHMANIASIS IN ROMAGNA. S. DONATI and W. ROSCHI. (1951) *Arch. Ital. di Derm.*, **24**, 3.

A review of 28 cases discovered in this region of Italy. Seven clinical forms are recognized, crusting and ulcerating, nodular, ulcerous, erythemato-squamous, infiltrated crusted, and with mucosal ulceration (in that order of frequency).

Local injection of 50 to 100 mg. of Atebrin into the lesion, with the addition of Biaspiral and Glucantim (g. 3) intramuscularly in a few cases, proved satisfactory. The incubation period remains variable but it is probably 1 to 6 months, with an average of 2 months (Laveran).

D. S. W.

ZOSTER AND VARICELLA. M. TORCHI. (1951) *Arch. Ital. di Derm.*, **24**, 27.

The author reports 3 cases of varicella following zoster in contacts. Varicella-zoster-varicella sequences have been observed, and there is much evidence to suggest that a single virus may be the cause. Unexplained difficulties remain, however, and the author suggests tentatively that the zoster virus may exist in two forms (as with the influenza virus A and B), one an infective form capable of giving rise to both zoster and varicella, and the other to zoster only.

D. S. W.

VITAMIN E, WITH SPECIAL REFERENCE TO DERMATOLOGY. C. STERZI. (1950) *Arch. Ital. di Derm.*, **23**, 257.

Vitamin E has been credited with success in conditions varying from cerebral thrombosis to nocturnal enuresis. Apart from its recognized effect on habitual abortion in cattle, its more

variable effect in humans and the possibility that it has some action both in certain vascular and in certain neuromuscular diseases, its application in dermatology has led to very differing results —on the whole inconstant and unproven. A series of 25 cases of lupus erythematosus were treated with vitamin E in doses of 50 to 250 mg. daily: 13 cases are said to have cleared and remained clear for 6 months. D. S. W.

BLASTOMYCOSIS ACNEOIDES CONGLOBATA. V. Rizzi. (1950) *Arch. Ital. di Derm.*, 23, 321.

The blastomycetic organism is a saprophyte, rarely becoming virulent through an unknown mechanism. It usually attacks the skin primarily, but may do so late in a systemic infection. In the former case it may produce a vegetating and papilliferous form (Gilchrist) or, rarely, a nodulo-gummatous form (Busse-Buschke). The author describes a case of the latter in which a man with a notably seborrhoeic skin had scattered nodules, ulcerating, gummatous and cystic lesions, typical of acne conglobata. Blastomycetic organisms were found in the centre of each lesion and not elsewhere, and are considered by the author to be causative. Tuberculosis and syphilis were excluded.

The author is impressed by the coincidence of marked seborrhoea and acne in this patient, but this is also seen in acne conglobata, and it is difficult to be certain that the organism incriminated is in fact the primary cause here. It is reasonable to imagine that it finds a suitable resting-place in the follicles and scales of a sebaceous type of skin, and particularly in the sinuses and abscesses of acne conglobata. D. S. W.

KELOID AND SELF ADMINISTRATION OF ADRENALINE. C. Kelman Robertson. (1951) *Edin. med. J.*, 58, 555.

A girl aged 19 suffering from severe asthmatic attacks was treated with adrenaline injections, self administered. Six months after starting the injections raised scars formed at the sites of injection, first on the upper arms, then on thighs, and finally on the lower abdomen. The clinical diagnosis of keloid was confirmed by biopsy. A small scar on the back of the left hand, due to some minor injury, showed no keloid formation. C. D. E.

PENICILLIN IN THE TREATMENT OF NEUROSYPHILIS. W. D. Nicol and M. Whelen. (1951) *Brit. J. vener. Dis.*, 27, 132.

The authors discuss 463 cases, of whom 31 were treated with penicillin only, 152 with penicillin plus malaria and 280 with malaria only. They indicate that the more severe parenchymatous group—general paralysis, taboparesis, and optic atrophy—need the most energetic measures, and say that, in spite of the many divergent opinions quoted, it would be unwise to eliminate malaria altogether. They conclude that penicillin should now be the main line of treatment and malaria the supplementary one, at least in the more severe forms of parenchymatous neurosyphilis. Opinion is still divided as to the optimum dose of penicillin, and a further complication has appeared. The question has been raised whether intermittent but high blood penicillin levels were not more efficient than sustained but relatively low levels. W. G. A.

KERATODERMIA BLENNORRHAGICA: REPORT OF A CASE AND A SUGGESTION CONCERNING ITS NATURE. G. Auckland. (1951) *Brit. J. vener. Dis.*, 27, 143.

A male aged 39 had abacterial urethritis, polyarthritis, balanitis and a skin eruption. The illustrations are most helpful, and there are three microphotographs showing the vesicular, papular and psoriasiform stages of the skin lesions. The author suggests that it would seem desirable to substitute the diagnosis of "Reiter's diseases with psoriasis" for the term "keratodermia blennorrhagica," and also that the cutaneous manifestations in such cases are in fact psoriasis. W. G. A.

JAUNDICE FOLLOWING ACETARSOL PESSARIES. H. D. Crosswell. (1951) *Brit. J. vener. Dis.*, 27, 150.

A case of obstructive jaundice, following the use of acetarsol pessaries, and probably due to intrahepatic obstruction of the bile ducts, is presented. The clinical, biochemical and pathological characteristics of this type of jaundice are described and the cause of this reaction is discussed. (The reviewer has seen several similar cases during the past 10 years.)

W. G. A.

SOME CONSIDERATIONS CONNECTED WITH THE CLASSIFICATION AND EXPLANATION OF NAEVI AND NAEVOID CONDITIONS. F. Parkes Weber. (1951) *Brit. med. J.*, 2, 992.

In this authoritative paper the scope of the term "naevus" is extended beyond a birthmark to include any localized congenital or developmental abnormality of tissue as evidenced by bulk, texture, colour, and functional and metabolic activities. Thus an enormous variety of lesions which have in common only their congenital nature or their proved or presumed developmental origin are described as naevoid, including atavistic characters, neurofibromata, xanthelasma palpebrarum, calcinosis, some amyloid conditions, angiokeratosis, telangiectasia macularis eruptiva perstans and urticaria pigmentosa. Some acquired minor dermatological abnormalities such as Campbell de Morgan's spots might be regarded as resulting from spontaneous mutation of somatic cells. The tendency to spontaneous disappearance and to malignant changes in naevi is noted, and also the association of melanin spots of the lips and oral mucosa with intestinal polyposis. The term "phakomatoses" (van der Hoeve) is etymologically exact in describing some developmental diseases which may equally correctly be called "naevoid diseases."

B. A. T.

ACROSCLEROSIS. A. S. Ramsey. (1951) *Brit. med. J.*, 2, 877.

"Raynaud's phenomenon," which is intermittent in Raynaud's disease, is constant in acrosclerosis, and was prominent in the three cases described. It is suggested that acrosclerosis is a disease of adaptation and would probably respond to cortisone treatment. B. A. T.

ACROSCLEROSIS. S. C. Truelove and H. M. White. (1951) *Brit. med. J.*, 2, 873.

Acrosclerosis with its frequent visceral lesions is a disease *sui generis* and is to be differentiated from generalized progressive sclerodermia. Raynaud's phenomenon occurred in the four cases of acrosclerosis presented and three of them had oesophageal involvement. B. A. T.

THE ERYSIPELOID OF ROSENBACH. J. E. L. Price and W. E. J. Bennett. (1951) *Brit. med. J.*, 2, 1060.

Two series of cases of erysipeloid of the hand are reported, there being 31 cases in the first and 20 cases in the second series. The signs, clinical course and monthly incidence are described and the results of culture in the second series presented. In the second series 47% of the patients were symptom-free in 6 days and 73% in 12 days after treatment with parenteral penicillin.

B. A. T.

THE BACTERIOLOGY OF ERYSIPELOID. P. H. A. Sneath, J. D. Abbott and A. C. Cunliffe. (1951) *Brit. med. J.*, 2, 1063.

From 20 patients with erysipeloid, *Erysipelothrix rhusiopathiae* was isolated in 7 instances. The 7 strains were examined in detail, including serology and sensitivity to antibiotics. Culturally and biochemically they were homogeneous and indistinguishable from veterinary strains. They were distributed among several antigenic groups and were relatively uniform in their sensitivity to each of various antibiotics, being most sensitive to penicillin, aureomycin and chloramphenicol. B. A. T.

DIATHERMY TREATMENT OF ANGIOMATA. David Aiken. (1951) *Brit. med. J.*, 2, 1123.

When treating angiomata the surgeon uses the scalpel or diathermy, the radiotherapist *x*-rays or radium and the dermatologist carbon dioxide snow. This paper describes an attempt to improve the diathermy method; a special insulated needle-electrode was prepared and used with great success in more than 80 cases. All forms of angiomata except the port-wine stain and giant naevi may be safely treated, and the cosmetic result is comparable with that of other methods of treating capillary angiomata and is superior to them in the treatment of cavernous angiomata. An anaesthetic is required, and repeated sessions may be necessary to complete the treatment. B. A. T.

SULPHONE TREATMENT OF LEPROSY. J. Lowe. (1948) *Leprosy Review*, 19, 129.

An appraisal of sulphone therapy at a time when the use of drugs of this group was meeting with success, but the influence was only just beginning to be felt. Comment is restrained. The author, who has a long experience of leprosy and its treatment, deals with the practical use of the sulphones, their probable mode of action and the factors influencing the evaluation of results.

F. S. A.

PHYSICAL THERAPY IN LEPROSY. S. Alderson. (1948) *Leprosy Review*, **19**, 120.

Involvement of the nerves, giving rise to trophic changes which are responsible for serious deformities, is common in leprosy. Physiotherapeutic measures which can do much to prevent these deformities or improve functional capacity if introduced at a later stage, have been much neglected. A plea is put forward for the routine use of physical measures (wax baths, massage, exercises and occupational therapy) at all leprosaria. The chief difficulties are shortage of trained physiotherapists and other suitable personnel, indifference on the part of patients, and lack of interest at administrative level. There are few leprosaria where provision is made for such therapy and the need is great. F. S. A.

LEPROSY IN THE BRITISH WEST INDIES. E. Muir. (1948) *Leprosy Review*, **19**, 139.

In 1948 the writer visited British territories in the Caribbean to investigate leprosy there, and to advise on its treatment and control. Leprosy is not a major problem in that area. The greatest incidence is in Trinidad and British Guiana (0·3–0·4 per mille). Muir was favourably impressed by the improvement of patients, particularly in Trinidad (where he had been in charge of the leprosarium 1941-1945) and in Jamaica. The more effective treatment of leprosy with sulphones may justify a radical change of policy ; the abolition of asylums, compulsory segregation, the proper training of doctors and the periodic examination of new arrivals from endemic areas together with the regular examination and instruction of contacts. Such a change would be suitable only for areas of low endemicity ; where the incidence is higher (Jamaica, British Guiana and Trinidad) he believes that it would be a mistake to abolish institutions for isolation, although they should be made far more attractive. There were, however, in 1948, too many inactive cases still being held in the institutions, so increasing the financial burden on the authorities and encouraging discontent amongst the patients. F. S. A.

THE EVALUATION OF LEPROSY AND LEPROSY CONTROL. J. Lowe, R. G. Cochrane, G. L. Fite, E. P. Fidanza and Dharmendra. (1948) *Leprosy Review*, **19**, 143 (Correspondence.)

The important and difficult question of type mutability in leprosy is considered by outstanding authorities. At one time it was widely accepted that the form of leprosy now known as lepromatous frequently developed from the form now known as tuberculoid (Lowe). Among Chinese in Malaya, for instance, cases of leprosy normally start clinically and histologically as pure tuberculoid (Ryrie), and in the normal course of events degenerate into lepromatous cases. Lowe, Cochrane and Fernandez (drawing upon their wide experience in India and Argentina) have not observed such a change to be common or even possible. Differences in the interpretation of histology or clinical appearance of tuberculoid leprosy do not account for this apparent contradiction (Ryrie). There may be significant type variations both in neural tuberculoid and lepromatous leprosy (Ryrie). The question of mutability is intimately bound up with the question of what constitutes tuberculoid leprosy. There is still room for the "border line, intermediate or doubtful" lesions, which occupy a position somewhere between the two polar types (Cochrane). Our knowledge of the evolutionary early phases of leprosy, especially from the histological view, is still far from being properly documented under the microscope, and judgment as to typing different examples of tuberculoid leprosy from the scientific standpoint are necessarily immature (Cochrane). The views of these authorities (Lowe, Cochrane, Fite, Finandez and Dharmendra) will be well known to leprologists ; but this symposium provides the general dermatologist not versed in leprosy with an assessment of the position as it stands at present. F. S. A.

TWO-AND-A-HALF YEARS' EXPERIMENTAL WORK ON THE SULPHONE GROUP OF DRUGS. R. G. Cochrane, K. Ramanujam, H. Paul and D. Russell. (1949) *Leprosy Review*, **20**, 4.

This adequate record of the trials carried out at Chingleput (S. India) under Cochrane's direction will interest all leprologists and those dermatologists who are working with the sulphones. It is evident that all the sulphones have a definite action on *M. leprae*. The choice of a sulphone depends on three factors : Price, ease of administration, availability and absence of toxic effects or lack of absorption (Cochrane). There is the possibility that 90% or more of the oral sulphone derivatives are either inactivated in the tissues, or otherwise wasted (Ryrie). Cochrane favours the parent substance (diaminodiphenylsulphone), as the most effective anti-leprosy remedy he used, but until the question of toxicity is settled it is not at present advisable

to use it. A few cases were treated with promin, others with diasone, and still more with sulphetrone (by mouth). Viewed in the light of the criteria already stated, the preference at present must be given to a 50% solution of sulphetrone in water, which is given by injection (Cochrane). It is clear that the action of diaminodiphenylsulphone in leprosy is much more complicated than was originally believed. It is possible that tissue concentrations of sulphone may have little relation to clinical improvement (Ryrie). Hence, although it is agreed that the sulphones have great value in the treatment of leprosy, much remains to be decided about necessary details. F. S. A.

TREATMENT WITH DIASONE -TWELVE MONTHS' EXPERIENCE WITH TWENTY-TWO PATIENTS. A. B. Macdonald. (1949) *Leprosy Review*, **20**, 68.

Twenty-two patients in Nigeria, all with advanced lepromatous leprosy, were given diasone for a year. The result of this treatment gratified both staff and patients. The cases had been selected for this test because they had failed to respond to injections of hydnocarpus oil given over a period of years. Particularly striking were the healing of ulcers, improvement in the general health and in such local manifestations as laryngeal disease. F. S. A.

A PHARMACOLOGICAL STUDY OF THREE SULPHONES. M. Smith. (1949) *Leprosy Review*, **20**, 78.

The sulphones studied were sulphetrone, diasone and diaminodiphenylsulphone. Pharmacologically the most desirable sulphone is the one that is least toxic, is absorbed completely from the gut, and excreted slowly from the body in the urine. Blood and tissue levels of a therapeutic order may then be maintained on small, widely spaced doses, thus reducing the cost of therapy, and making possible mass oral treatment with the minimum of staff. The three sulphones were compared from these points of view. The one which met these requirements of absorption, distribution and excretion most satisfactorily was diaminophenylsulphone, the parent substance. Smith's investigation has been very valuable in establishing this fact, for Cochrane has already shown a clinical preference for the parent substance, but was uneasy about its toxic properties. F. S. A.

A STUDY OF LEPRA REACTIONS. G. O. Teichmann. (1949) *Leprosy Review*, **20**, 89.

The author studied lepra reactions at Purulia (India) to find out whether there are any other factors besides individual susceptibility which tend to precipitate reactions. No patients were given sulphone therapy. The investigation covered a year (1948–1949). It was found that the majority of reactions occurred during the hot, dry season of the year ; diseases like pneumonia and dysentery frequently precipitated the reactions in susceptible people ; and they appeared to be allergic in nature. F. S. A.

TWO SIMULTANEOUS CASES OF LEPROSY DEVELOPING IN TATTOOS. R. J. Porritt, and R. E. Olsen. (1949) *Leprosy Review*, **20**, 106. (Reprinted from *Intl. J. of Leprosy*, **16**, No. 4.)

Two men from the same community were tattooed by the same man on the same day (in June, 1943) in Melbourne, Australia, and both developed maculo-anaesthetic or tuberculoid leprosy in their tattoos during the first half of 1946. One man had multiple tattoos, but developed leprosy only in the one made in Melbourne the day when his friend was tattooed. These two cases provide strong evidence for the spread of leprosy by inoculation. Certainly it is a remarkable coincidence. But already certain authorities have doubted whether this is more than a coincidence, for there have been other instances where infection after inoculation has been claimed. It is hoped that these two subjects will be carefully examined and followed up, for the issue is of fundamental importance. F. S. A.

EFFECT OF SUNLIGHT ON THE STAINING PROPERTIES OF THE LEPROSY BACILLUS. Dharmendra and Mukerjee. (1949) *Leprosy Review*, **20**, 111.

The authors investigated the effect of sunlight on the staining properties of *M. leprae* and concluded that (1) exposure to sunlight of unstained smears containing leprosy bacilli interferes with the property of acid-fastness ; (2) if the smears are covered with black paper before being exposed to sunlight, the staining property of the bacilli remains unchanged ; (3) exposure to ultra-violet rays has the same effect as exposure of uncovered smears to sunlight, while exposure to infra-red does not affect the staining properties of the bacillus ; and (4) exposure of the rat

leprosy bacillus to sunlight, ultra-violet or infra-red rays does not affect its staining properties. This has a bearing on certain important matters, such as the staining of smears in the field, the possible therapeutic value of ultra-violet light in leprosy, and the difference between the organisms of human and rat leprosy. F. S. A.

ELICITATION AND INTERPRETATION OF TACTILE ANAESTHESIA. G. A. Ryrie. (1949) *Leprosy Review*, **20**, 114.

The most effective test for anaesthesia in leprosy is the use of a fine point of cotton wool. The areas of the outer aspects of the joints (ankles, etc.) normally show a relative anaesthesia in a healthy person. Hair is not insensitive to light touch and anaesthesia should be elicited with a single hair of cotton wool. In cases of doubt diagnosis of leprosy should not be made where there is (*a*) no skin lesion, (*b*) no thickened nerve, and (*c*) no muscle wasting. F. S. A.

A PHARMACOLOGICAL STUDY OF THREE SULPHONES, PART II (HYDROLYSIS AND THE SPECIFIC TOXIC PHENOMENA). M. Smith. (1949) *Leprosy Review*, **20**, 128.

This is a continuation of the author's study of the sulphones (the first part of which appeared earlier in 1949—*Leprosy Review*, **20**, 78). He begins by stating that no information has been presented which indicates that high blood levels of any of the sulphones promotes greater rapidity of clinical response. The present dosage regimens are based upon empirical assumptions. It has been shown that a satisfactory clinical response is obtained with extremely small doses of diaminodiphenylsulphone. On the basis of data presented, it is claimed that there is both experimental and theoretical evidence of the *in vivo* partial hydrolysis of the proprietary sulphones, to diaminodiphenyl sulphone. The toxic effects of any sulphone may be due to a combination of the toxic action of diaminodiphenylsulphone and the toxic effect of the whole molecule of the sulphone or portion of the molecule remaining after the liberation of diaminodiphenylsulphone. The possible intrinsic toxic properties of this substance are then considered. His study of blood dyscrasias was hampered by factors not associated with the above chemical substances, but it was shown that diaminodiphenylsulphone is not more anaemia-producing than diasone or sulphetrone. In view of the belief now widely held that diaminodiphenylsulphone is to be preferred to the proprietary sulphones, this confirmation that (in the doses needed) it is not more toxic, will be welcomed by many. F. S. A.

ANTI-HISTAMINIC DRUGS. COMPARATIVE ACTIVITY IN MAN AS MEASURED BY HISTAMINE IONTOPHORESIS. T. H. Sternberg, D. J. Perry and P. Levan. (1950) *J. Amer. med. Ass.*, **142**, 969.

By the iontophoresis of serial dilutions of histamine base the highest dilution producing diffuse punctate whealing at the site of the positive electrode was determined. The drug to be tested was administered orally, and the threshold dilution of histamine base again determined one and two hours later. In a previous publication two of the authors have shown that the measure of anti-histamine activity obtained by this technique correlates with clinical experience.

The 13 anti-histamines commercially available in the United States at the time of investigation were tested. In order of decreasing anti-histaminic effect the drugs were : Diphenhydramine (benadryl) hydrochloride, Tripelennamine (pyribenzamine) maleate, Hydryllin (diphenhydramine and aminophylline), Phenindamine (thephorin) tartrate, Diatrin, Prophenpyridamine (trimeton), Doxylamine (decapryn) succinate, Chlorothen (tagathen) citrate, Methapyrilene (thenylene) hydrochloride, Methapyrilene (histadyl) hydrochloride, Thonzylamine (neohetramine) hydrochloride, Antazoline (antistin) hydrochloride. A 50 mg. dose was given, except in the case of Methapyrilene and Antazoline, of which 100 mg. was given.

The variation in individual response so frequently observed clinically was confirmed. Eight patients showing no alteration of the histamine whealing threshold after the oral administration of a number of different drugs also failed to repond to intravenous Tripelennamine hydrochloride. Faulty absorption can therefore be excluded as the cause of failure.

Anti-histamines have many other actions, some responsible for undesirable side-effects, and some of therapeutic value. Drugs showing relatively low anti-histaminic activity may be superior in other respects. A. J. R.

TREATMENT OF EXTERNAL OTITIS : A SIMPLE AND EFFECTIVE TECHNIQUE. I. L. Ochs. (1950) *J. Amer. med. Ass.*, **142**, 1361.

The importance of *Bacillus pyocyaneus* (*Pseudomonas aeruginosa*) as a cause of external otitis has been emphasized by several authors in recent years. Figures are quoted in which the organism

has been isolated in from 45% to 90% of consecutive cases in different series. Acetic acid has a bactericidal action against *B. pyocyaneus, B. proteus* and other Gram-negative bacilli. The author employed 2% acetic acid in the treatment of 248 ears in 165 patients. The ear is cleaned with hydrogen peroxide, and a cotton wick saturated with aluminium acetate containing 2% acetic acid is inserted. The patient is instructed to keep the wick saturated with this solution. After 48 hours the ear is cleaned again and a new wick is inserted. The procedure is repeated until the acute stage has subsided, when a propionic acid ointment is prescribed.

It is claimed that this technique has given a very high degree of success. A. J. R.

INSULOGENIC LIPODYSTROPHIES. C. P. Lamar. (1950) *J. Amer. med. Ass.*, **142**, 1350.

Insulogenic lipodystrophy was discovered in nearly 60% of the author's patients who had been taking insulin for more than six months. Two types of lesion were observed; the first, which he names the hypertrophic nodular type, consists of hard, painless subcutaneous nodules not involving the overlying skin. It is usually preceded by an inflammatory phase. In the second, the atrophic type, there is gradual disappearance of the subcutaneous fat and the overlying skin becomes leathery and mummified. The two types of lesion may be present in the same patient.

Repeated injection in the same site is the chief aetiological factor. Injections given in involved areas may be slowly or irregularly absorbed and apparent insulin resistance may result. Four such cases are reported. A scheme is suggested to ensure that the injection site is constantly changed. A. J. R.

CIGARETTE PAPER DERMATITIS. M. J. Tye. (1950) *J. invest. Derm.*, **14**, 77

Cigarette paper used to be made from linen rags. Since 1939 it has been manufactured directly from *lium usitatusimum* (sic). Two patients gave positive patch-test reactions to such paper and to the flax in earlier stages of its manufacture into paper. J. H. T. D.

PROLONGED LOCAL ANAESTHESIA BY INJECTIONS WITH PROCAINE BASE. S. Monash. (1950) *J. invest. Derm.*, **14**, 79.

The anaesthesia produced by subcutaneous injection with water-soluble salts of procaine lasts no more than an hour or so; with oily solutions of the base itself, which is insoluble in water, it lasts for 2–3 hours. The author injected into his own forearm 1 c.c. of 1% procaine suspended in water by Aerosol O.T., and obtained an area of anaesthesia 2·5 cm. in diameter which lasted 20 days. A solution of 5% in alcohol lasted 14 days. Neither injection was painful. J. H. T. D.

STUDIES IN MUCOUS MEMBRANE SENSITIZATION. PART III: ON THE EFFECTS OF TOOTH-POWDER CONTAINING PENICILLIN. L. Goldman and A. J. Tronstein. (1950) *J. invest. Derm.*, **14**, 57.

Penicillin toothpowder is supposed to prevent caries. Such powder maintained for an hour in contact with the buccal mucosa by means of a pad of moist wool was employed to discover mucosal sensitivity.

Of 107 individuals tested, 65 were known to have been in contact with penicillin and 6 of them had had reactions to it. Of these 6, 4 reacted to the test, but were nevertheless able to use penicillin toothpowder in the ordinary way for 3 weeks without ill effect. There was one reaction among the 42 who had not knowingly used penicillin before. J. H. T. D.

THE TREATMENT OF CUTANEOUS BLASTOMYCOSIS WITH PROPAMIDINE. J. W. Colbert, M. J. Strauss and R. H. Green. (1950) *J. invest. Derm.*, **14**, 71.

Propamidine (4-41 diamidino-diphenoxypropane) is lethal *in vitro* to trypanosomes, certain Gram-positive cocci and, in a concentration of 3·75 mg. per 100 c.c. of culture medium, to *Blastomyces dermatitidis*. It has been used locally in chronic wound sepsis, but attempts to give it parenterally (in African sleeping sickness) caused fainting. Moreover, the possibility of delayed toxic effects by absorption from wound surfaces cannot yet be excluded. Dressings of 0·1% propamidine in methyl cellulose gel were tried locally for two periods of 9 days each in a case of blastomycosis, with favourable but inconclusive effect. J. H. T. D.

THE CHEMISTRY OF THE FEULGEN REACTION AND RELATED HISTO- AND CYTOCHEMICAL METHODS. E. D. DeLamater, H. Mescon and J. D. Barger. (1950) *J. invest. Derm.*, **14**, 133.

A HISTOCHEMICAL STUDY ON POLYSACCHARIDES IN NORMAL AND DISEASED SKIN. R. Stoughton and G. Wells. (1950) *J. invest. Derm.*, **14**, 37.

The Feulgen nucleic stain, the periodic acid-Schiff stain and the aldehyde-mordanted basic fuchsin stain are primarily used in histochemical studies of the constituents of karyoplasm ; but similar chemical principles are employed in the specific staining of polysaccharides.

Muscle- and liver-glycogen, hyaluronic acid, gastric mucin, umbilical cord polysaccharides and glycuronic acid stain red with McManus' periodic acid and reduced fuchsin technique. If glycogen is first removed from sections of skin by means of β-amylase, staining with McManus shows a red line along the dermo-epidermic junction, which also outlines the sebaceous glands, sweat-coils and vessels. The probable nature of this material is discussed at length. Important changes in the distribution of pelysaccharide material are seen in cases of L.E. and dermatomyositis.

J. H. T. D.

HERPES ZOSTER : TREATMENT OF PAIN WITH DEHYDROERGOTAMIN-45. F. C. Combes, O. Canizares and S. Simuangco. (1950) *J. invest. Derm.*, **14**, 53.

In 17 of 40 cases of zoster, complete relief of pain lasting at least 8 hours followed each injection of D.H.E.-45. In another 13 cases results are described as satisfactory. The remedy appears to be harmless.

J. H. T. D.

SENSITIZATION TO ANTISTINE. M. M. Mosko and W. L. Peterson. (1950) *J. invest. Derm.*, **14**, 1.

A 53-year-old woman, who complained of photophobia and itching of the eyes without physical signs, received in turn Antistine, penicillin ointment, privine, pyribenzamine, sodium sulphacetamide and bacitracin with a corresponding crescendo of inflammation. Patch-tests with Antistine produced a " large ulcer." " Avoidance of Antistine has produced a complete clinical cure."

J. H. T. D.

URETHANE TREATMENT OF A CHRONIC LYMPHADENOSIS OF THE SKIN. Peter Krause. (1950) *Derm. Wschr.*, **121**, 105.

A woman aged 68 (weight 49 kilos), with chronic lymphadenosis and extensive skin involvement, received three courses of urethane intravenously. Following the first course of 42 g. the exanthem disappeared. She was admitted with a severe relapse 18 months later. Other treatment proving ineffective, a second course of urethane, 5 g. *b.i.d.*, was started, but had to be suspended after 30 g. on account of intolerance and circulatory weakness. When the general condition improved a third course of urethane, 5 g. daily, was begun. After 10 days the tumour-like infiltrations of the face disappeared and the leucocytes fell from 70,000 to 35,000. Urethane was stopped after 100 g. (total 130 g.). The skin was greatly improved, remaining only slightly solid and thickened, of a reddish-brown colour, and showing an occasional small nodule. The spleen was now softer, and reached only 2 in. instead of 3 in. below the costal margin. Eight days after stopping urethane the leucocyte count fell to 2300. On discharge three weeks later it had risen to 4100. The Hb. was then 50% and the R.B.C. 2,700,000—lower than they had been yet. The author thinks it worthy of note that, contrary to the experience of some writers, there was no refractory response to urethane subsequent to previous treatment with the drug in this case of lymphadenosis.

M. S. S.

PENICILLIN ACTIVITY IN DERMATOMYOSITIS. K. Halter. (1950) *Derm. Wschr.*, **121**, 222.

Having read of the successful treatment of a case of acute dermatomyositis with penicillin, and having had a similar success in a case of his own, the author decided to try the effect in two cases of subacute dermatomyositis. The results were unfavourable. The author suggests that response to penicillin may vary with the aetiology.

M. S. S.

IS FURUNCULOSIS A DISEASE OF THE MALE? Walther Krantz. (1950) *Derm. Wschr.*, **121**, 61.

In the experience of the author and of colleagues he has questioned furunculosis lasting weeks or months appears to be almost exclusively a disease of the male. He suggests this may be due to an endocrine factor.

M. S. S.

THE TREATMENT OF MYCOSIS FUNGOIDES WITH CYTOSTATIC SUBSTANCES. Hans-Joachim Leidel. (1950) *Derm. Wschr.*, **121**, 169.

The author describes the chemistry of urethane and nitrogen mustard, and reviews the available literature on the use of these drugs. He gives in detail his experience of such therapy in two cases of radio-resistant mycosis fungoides. He has the impression that although there is a striking response to the therapy, nevertheless when the tumours do return, their rapidity of growth is definitely greater than before the treatment with urethane or nitrogen mustard. M. S. S.

TREATMENT OF CONDYLOMATA ACUMINATA WITH PODOPHYLLUM IN POLYGLYCOL. Karl Wurz. (1950) *Derm. Wschr.*, **121**, 178.

For treating genital condylomata acuminata the author uses a 1·5% concentration of podophyllum in hexaethylene polyglycol. He finds this as effective as a 20–25% concentration in liquid paraffin or in 96% alcohol. This he ascribes to the greater penetration of polyglycol, which is soluble in both water and fat. In his experience the podophyllum in polyglycol is not effective in the treatment of ordinary warts elsewhere. M. S. S.

THE HISTOGENESIS OF ANGIOMATOSIS KAPOSI. F. Nodl. (1950) *Derm. Wschr.*, **121**, 247.

In a preliminary communication the writer discusses the histopathological findings in three cases of angiomatosis Kaposi, known also, though in recent years less frequently, as sarcoma idiopathicum multiplex haemorrhagicum Kaposi. Conflicting views as to its pathogenesis are also discussed. Biopsy material is taken from the clinically unaltered skin at the periphery of the disease process in order to determine the earliest stages of the process. This appears to consist of dilatation of capillaries with diapedesis of leucocytes, followed by exudation of fluid and diapedesis of red cells, then by the formation of new capillaries with irregular proliferation of the cells of the capillary wall, the changes to be interpreted as the expression rather than the result of a hyperexcitable state of the vascular nervous system. Special nerve endings in great number and of a type not previously described in the literature were demonstrated by silver impregnation ; clear microphotographs illustrate this finding. In the author's opinion the histological appearances point to a functional derangement of the peristatic endocrine neurovegetative mechanism, a factor of importance in the pathogenesis of the disease. M. S. S.

FACIAL GRANULOMAS WITH EOSINOPHILIA : THEIR RELATION TO OTHER EOSINOPHILIC GRANULOMAS OF THE SKIN AND TO RETICULOGRANULOMA. John H. Cobane, Claire L. Straith and Herman Pinkus. (1950) *Arch. Derm. Syph., Chicago*, **61**, 442.

The authors dislike the term " eosinophilic granuloma " because it implies a diagnosis where there is in reality none. They point out the essential differences between these lesions and the cutaneous manifestations of eosinophilic granuloma of bone, and prefer the descriptive name given in the title as long as the cause and relationship to other dermatoses are not established. J. K.

ANTIHISTAMINIC DRUGS IN DERMATOLOGIC THERAPY. George A. Waldriff, Jeff Davis and George M. Lewis. (1950) *Arch. Derm. Syph., Chicago*, **61**, 361.

Antihistamine drugs were given orally to 389 patients and applied topically to 277. In all 8 drugs were tested, but comparison of the results is difficult owing to the great variation in numbers treated with each drug. The difference between 100% and 0% is not so great as it seems when it is realized that the first figure refers to 2 patients and the second to 3. J. K.

SURVIVORS OF BOMBING OF HIROSHIMA THREE YEARS LATER. Frederick George Novy, jun. (1950) *Arch. Derm. Syph., Chicago*, **61**, 379.

This is an interesting note by an observer who examined a group (number unspecified) of survivors in Hiroshima. All suffered from scarring similar to that following ordinary " flash " burns. Transient effects such as temporary epilation had been noted in many cases, but no cutaneous radiation effects either from the explosion itself or from contact with residual radioactive substances were then observed. J. K.

SKIN LESIONS OF THE BREAST. F. F. Hellier. (1950) *The Practitioner*, **165**, 508.

The author discusses the diagnosis and treatment of eczema, intertrigo, seborrhoeic eczema, psoriasis, moniliasis, dermatitis venenata, scabies, Fox-Fordyce disease, seborrhoeic warts,

primary syphilis, condylomata, pigmentary changes, acanthosis nigricans, keloids and Paget's disease of the nipple. The treatments advised are on accepted lines. A. C. R.

THE MEDICAL ASPECTS OF HAIR DYEING. E. W. Prosser Thomas. (1950) *The Practitioner*, **165**, 171.

Hair dyeing is an ancient craft; it was revolutionized about 1880 by the discovery of paraphenylenediamine. Dyes are of three main types: vegetable, metallic and organic synthetic. Vegetable dyes (henna, indigo, logwood, etc.) are safe, but rather inconstant in their effects. Metallic dyes act by forming sulphides from the keratin of the hair. The effect of hair "restorers" depends on a slow action of this type; quicker results may be obtained by the inclusion of a developer, such as pyrogallic acid. Paraphenylenediamine is the prototype of the synthetic organic group. Of all hair dyes these are aesthetically the most satisfactory. Precautions in their use, and "para" dermatitis, are considered in some detail. I. A. R.

SKIN COMPLICATIONS OF CORTISONE AND ACTH THERAPY. H. T. Behrman and J. J. Goodman. (1950) *J. Amer. med. Ass.*, **144**, 218.

Most of the skin complications encountered in 4 women who were treated with ACTH have been reported in Cushing's syndrome. The skin becomes thin, is easily bruised and develops purplish striae. There is obesity of the face and neck, mild hirsutism and an acneiform eruption. In addition pigmentation of Addisonian type occurs. This is very rarely seen in Cushing's syndrome. Other complications are delayed wound healing and flattening of cheloidal scars.
A. J. R.

HAIRY TONGUE. A. M. Lefkovits and B. Lapidus. (1950) *J. Amer. med. Ass.*, **143**, 1482.

An unusually severe attack of black hairy tongue in a man aged 70. In a short review of the literature this type of overgrowth of the filiform papillae observed in elderly men in association with naso-pharyngeal infections is contrasted with a transitory velvety hypertrophy of the papillae which sometimes accompanied oral penicillin therapy.

The hypotheses put forward as to the cause of this condition are discussed, and it is concluded that invasion of the filiform papillae by bacteria or yeasts brings about a change whereby epithelial cells are unable to desquamate normally. A. J. R.

AUREOMYCIN HYDROCHLORIDE IN ACTINOMYCOSIS. L. T. Wright and H. J. Lowen. (1950) *J. Amer. med. Ass.*, **144**, 21.

This reports an extensive case of cervico-mandibular actinomycosis which responded dramatically to aureomycin. A. J. R.

PATHOGENESIS OF URTICARIA. D. T. Graham and S. Wolf. (1950) *J. Amer. med. Ass.*, **143**, 1396.

This paper is a valuable contribution to psychosomatic dermatology. Thirty patients (17 women and 13 men) who had suffered from repeated attacks of urticaria or whose present attack was of over 3 weeks' duration were carefully investigated. The patients' life histories were elicited, with special emphasis on the circumstances in which the first and subsequent attacks of urticaria occurred. The situations which seemed to have special significance for the patients were brought up frequently for discussion. During these interviews skin temperature and reactive hyperaemia thresholds were determined as measures of cutaneous vascular function. The techniques employed are fully described. In 24 of the patients and in 24 controls the sensitivity of the skin to histamine and pilocarpine iontophoresis was also determined.

In 29 of the 30 patients resentment was shown to be the essential emotion provoking urticaria; capillary tone was lower when resentment was aroused and skin temperature was increased. Urticaria usually first appeared in connection with resentment towards a person important to the patient, and was not associated with feelings of hostility and aggression. A. J. R.

PRIMARY CARCINOMA OF THE NAIL. L. W. Russell. (1950) *J. Amer. med. Ass.*, **144**, 19.

Primary carcinoma of the nail is exceedingly rare. Only 17 proved and 2 probable cases had been reported up to 1939. The present case is in a man, aged 37, who, 9 months after trauma of his right index finger, developed a "sore" of the lateral nail fold. He was found to have a bulbous swelling of the terminal phalanx of the finger and a small crusted ulcer of the nail-fold. Histologically the lesion was a squamous carcinoma with pronounced cornification. A. J. R.